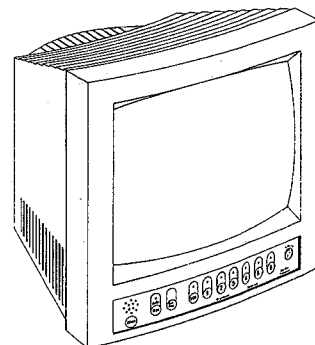


Service
Service
Service



Service Manual

Contents

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Technical Data

General	-/00T	-/01T	-05R
Mains voltage	: 220V $\pm$ 10%	240V $\pm$ 10%	110V $\pm$ 10%
Mains frequency	: 50Hz	50Hz	60Hz
External DC input	: 11,8V - 16V (ϕ 6.5mm)		
Power consumption	: 31W (AC), camera inclusive 19W (DC), camera inclusive		
Weight	: 6,5kg		
Dimensions (WxHxD)	: 345x302x300mm		
High voltage (zero beam)	: 10,8KV		
Ambient temperature	: +5 - +45 °C		

TV system

Scanning system	: CCIR-B (VHF)	CCIR-I	EIA
Number of lines	: 625	625	525
Field frequency	: 50Hz	50Hz	60Hz
Channel bandwidth	: 7MHz	8MHz	6MHz
Video bandwidth	: 5MHz	5,5MHz	4,2MHz
Difference sound/ video carrier	: + 5,5MHz	+ 6MHz	+ 4,5MHz

Camera inputs

Impedence	: 75 Ω
Sensitivity	: < 300 μ V

Channels

CH3			
-video carrier	: 55,25MHz	55,25MHz	61,25MHz
-sound carrier	: 60,75MHz	61,25MHz	65,75MHz
CH4			
-video carrier	: 62,25MHz	62,25MHz	67,25MHz
-sound carrier	: 67,75MHz	68,25MHz	71,25MHz
Horizontal pull-in range	: $\pm$ 4%		
Vertical pull-in range	: $\pm$ 5%		

Audio

Power output	: 0,7W
Frequency response	: 120Hz-3KHz (-3dB)
Microphone input impeded.	: 600 Ω (The external microphone must be a type with integrated push-to-talk switch.)

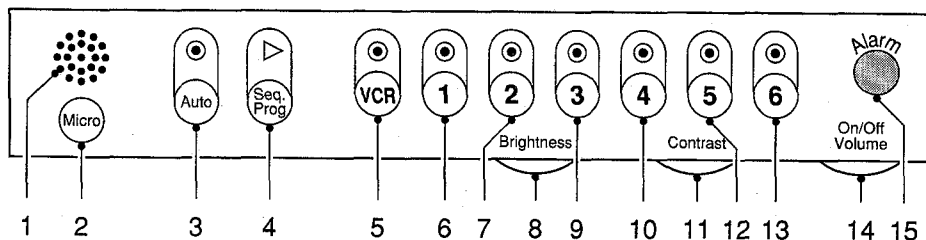
VCR signals

video input (CVBS)	: 1Vpp on 75 Ω (0,5 - 1Vpp)
audio input	: 1Vrms on 600 Ω (100mV - 2Vrms on 10K Ω)
video output (CVBS)	: $\geq$ 1 Vpp on 75 Ω (with camera signal from 2 to 10mV)
audio output	: $\geq$ 1Vrms on 600 Ω

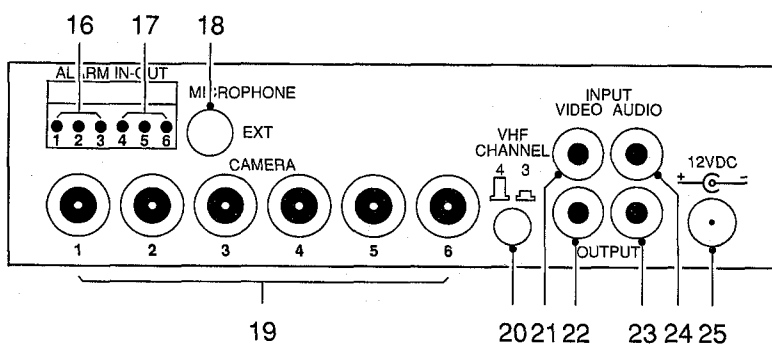
Alarm facilities

Output	: Normally open or normally closed contact.
-ratings	: max. switching voltage 250Vdc/220Vac max. switching current 2A max. switching power 50W
Input	: Normally open or normally closed push button.
-ratings	: max. switching voltage 20Vdc max. switching current < 5mA dc max. contact resistance 50 Ω (including wiring)

FRONT VIEW OPERATING AND CONTROL PANEL



REAR VIEW IN / OUTPUT



VSS3440
CL 26532009/035
110392

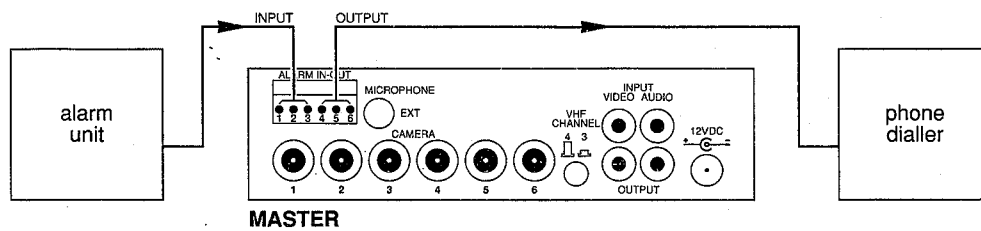
Operating functions

- 1 Internal microphone
- 2 Internal microphone activating push button
- 3 Push button for automatic scanning of connected camera's
- 4 Push button for adjusting scanning time of connected camera's
- 5 Push button for receiving signals via video and audio input (VCR signals)
- 6 Push button for selecting camera 1
- 7 Push button for selecting camera 2
- 8 Brightness control
- 9 Push button for selecting camera 3
- 10 Push button for selecting camera 4
- 11 Contrast control
- 12 Push button for selecting camera 5
- 13 Push button for selecting camera 6
- 14 ON/OFF switch + Volume control
- 15 Push button for switching on Alarm system

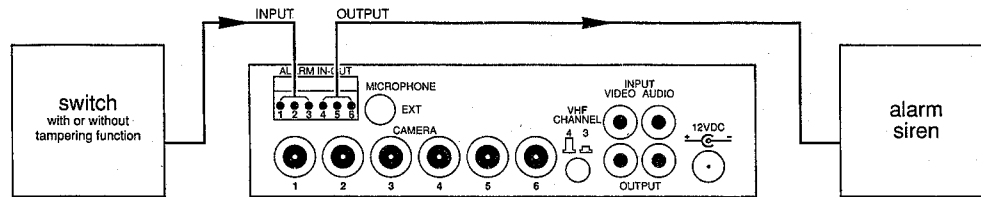
In/Outputs

- 16 Alarm input connection
- 17 Alarm output connection
- 18 External Microphone/switch connection (3,5mm)
Remark: External microphone overrides internal microphone
- 19 Camera input sockets (6X)
- 20 Channel selector switch (CH3 or CH4)
- 21 Video input socket
- 22 video output socket
- 23 Audio output socket
- 24 Audio input socket
- 25 External supply input socket ($\varnothing$ 6,5mm)

Alarm connection possibilities

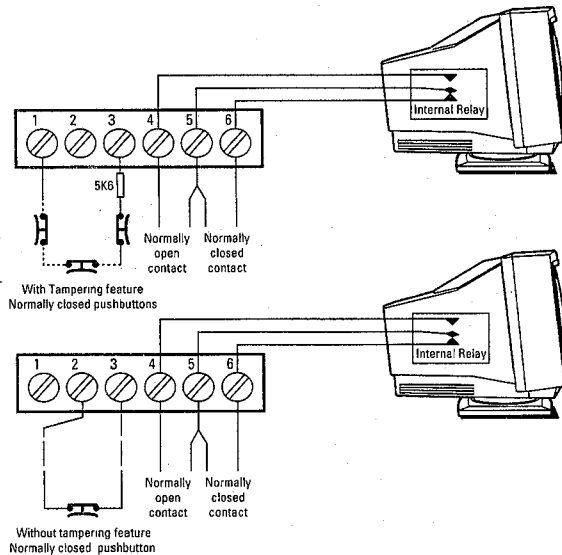
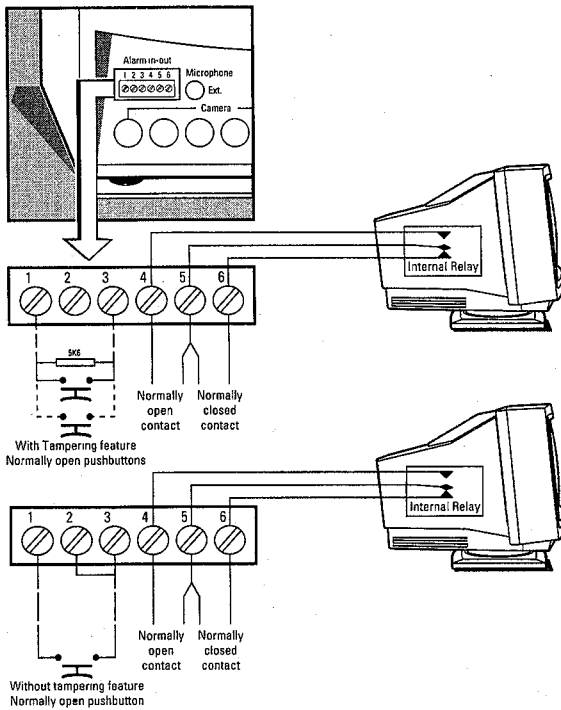


MASTER



MASTER

VSS3440
CL 26532009/017
110392



Warnings

1. Safety regulations require that the unit should be returned in its original conditions and that components identical to the original components are used. The safety components are indicated by the symbol .
2. In order to prevent damage to ICs and transistors, all high-voltage flash-overs must be avoided. In order to prevent damage to the picture tube, the method shown in Fig. 3.1 should be used to discharge the picture tube. Use a high-voltage probe and a multimeter (position DC-V). Discharge until the meter reading is 0 V (after approx. 30s).
3. **ESD** 
All ICs and many other semiconductors are sensitive to electrostatic discharges (ESD). Careless handling during repair can drastically shorten the life. Make sure that during repair you are connected by a pulse band with resistance to the same potential as the earth of the unit. Keep components and tools also at this same potential.
4. When repairing a unit, always connect it to the mains voltage via an isolating transformer.
5. Be careful when taking measurements in the high-voltage section and on the picture tube panel.
6. It is recommended that safety goggles are worn when replacing the picture tube.
7. When making settings, use plastic rather than metal tools.
This will prevent any short-circuit and the danger of a circuit becomes unstable.
8. Never replace modules or other components while the unit is switched on.
9. After repair the wiring should be fastened once more in the cable clamps for this purpose.
10. It is recommended to connect first the cameras to the camera inputs, before switching on the monitor. In this way you can prevent short circuit of camera input during camera connection and therefore prevent damaging of input transistor.
11. When no input signals are connected to the monitor, the screen will be blanked
12. When the set is switched on you hear the alarm sound. You can switch off this sound by:
 - Pushing the alarm push button
 - Interconnect contacts 2 and 3 of the alarm input socket.

Notes

1. The direct voltages and oscillograms are average voltages. They have been measured by using a pattern generator and under the following conditions:
 - Signal pattern: grey-scale
 - Adjust brightness and contrast control for the mechanical mid-position (click position)
 - Volume control in minimum position
 Remark: Apply pattern generator via a capacitor of 4.7nF to camera inputs for DC blocking.
2. The semiconductors indicated in the circuit diagram(s) and in the parts lists are completely interchangeable per position with the semiconductors in the unit, irrespective of the type indication on these semiconductors.

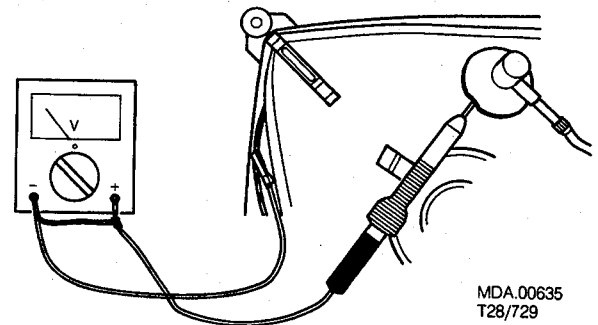


Fig.3.1

Mechanical instructions

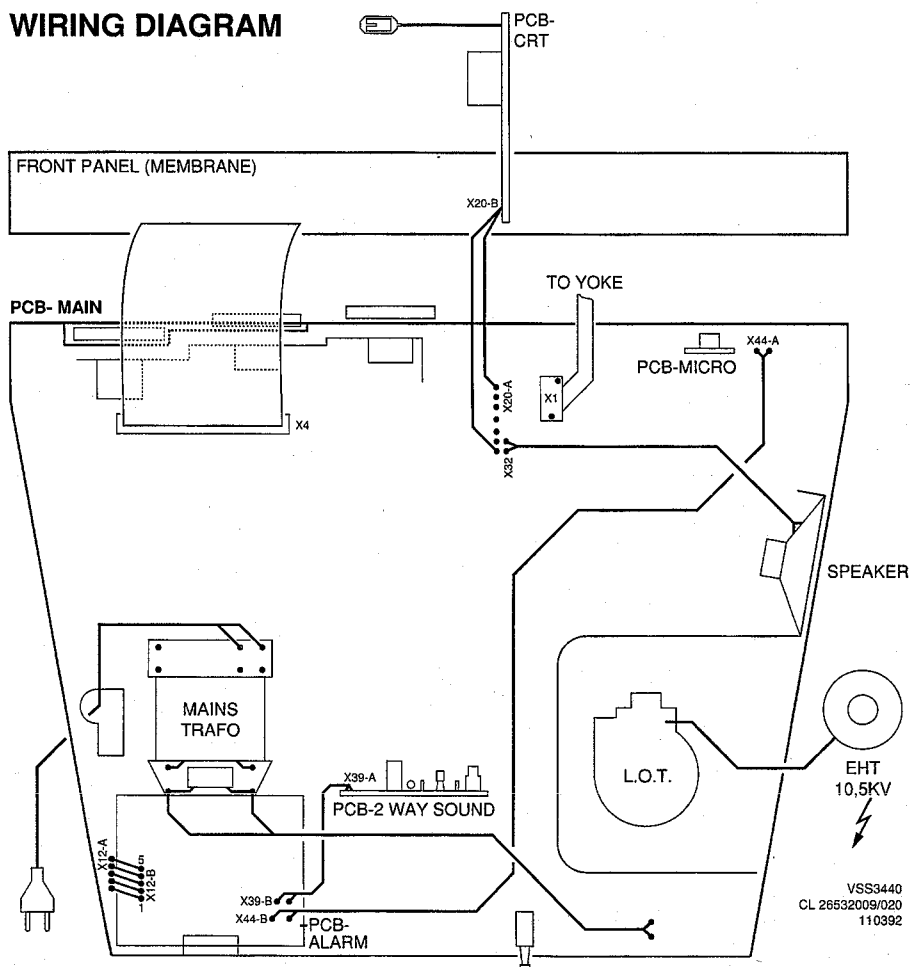
1. Service position of Main PCB

- Remove back cover (2 screws)
- Remove main PCB from bottom plate (2 screws)
- Remove operating membrane connection from Main PCB
- Main PCB can put in a vertical service position now.

Remark: The Main PCB can only checked now for position "Camera 1".

When also other functions have to be tested, a separate operating membrane have to be connected to the Main PCB. For the service code of the operating membrane see item 13 in the exploded view drawing.

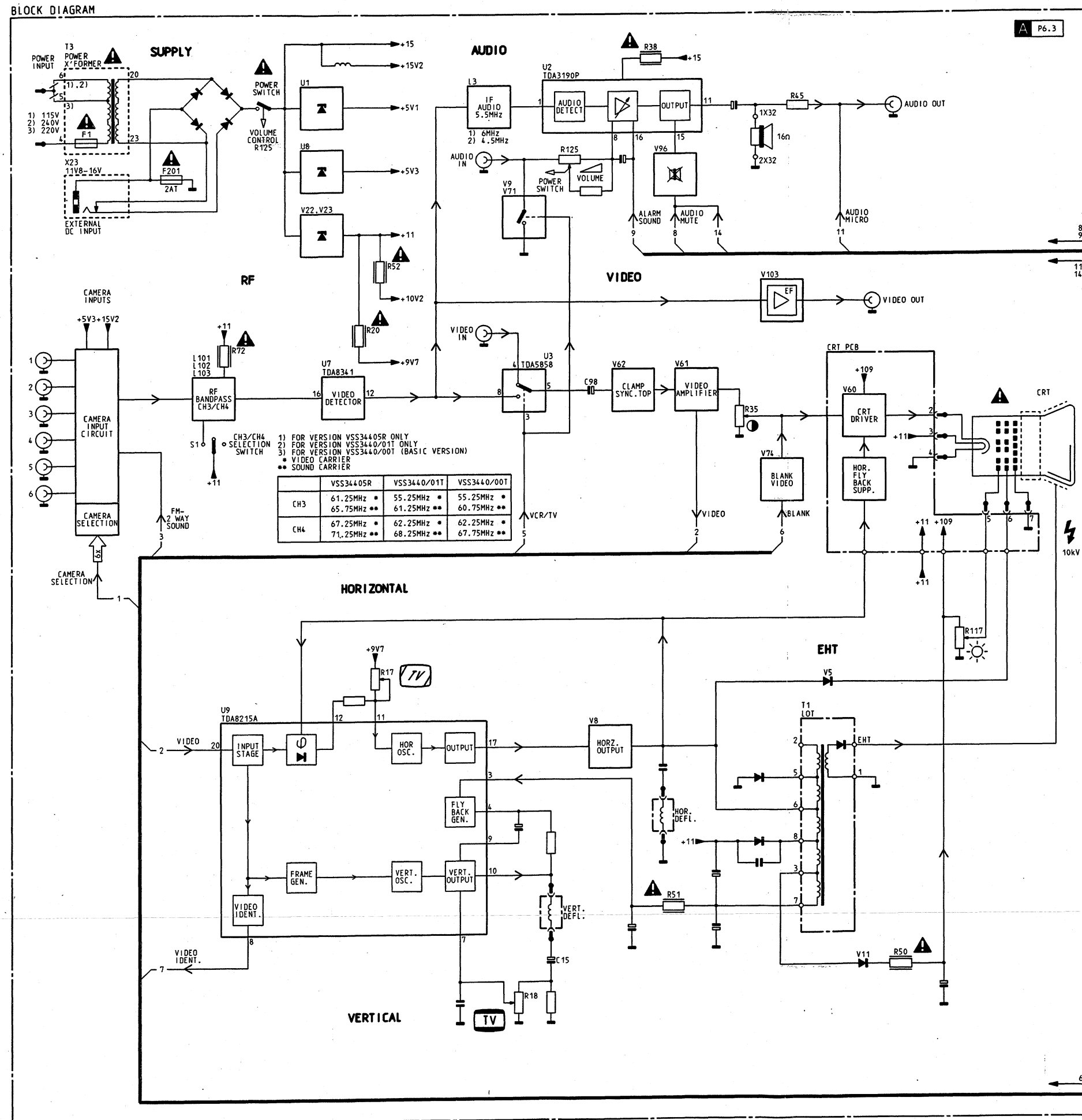
WIRING DIAGRAM



VSS3440

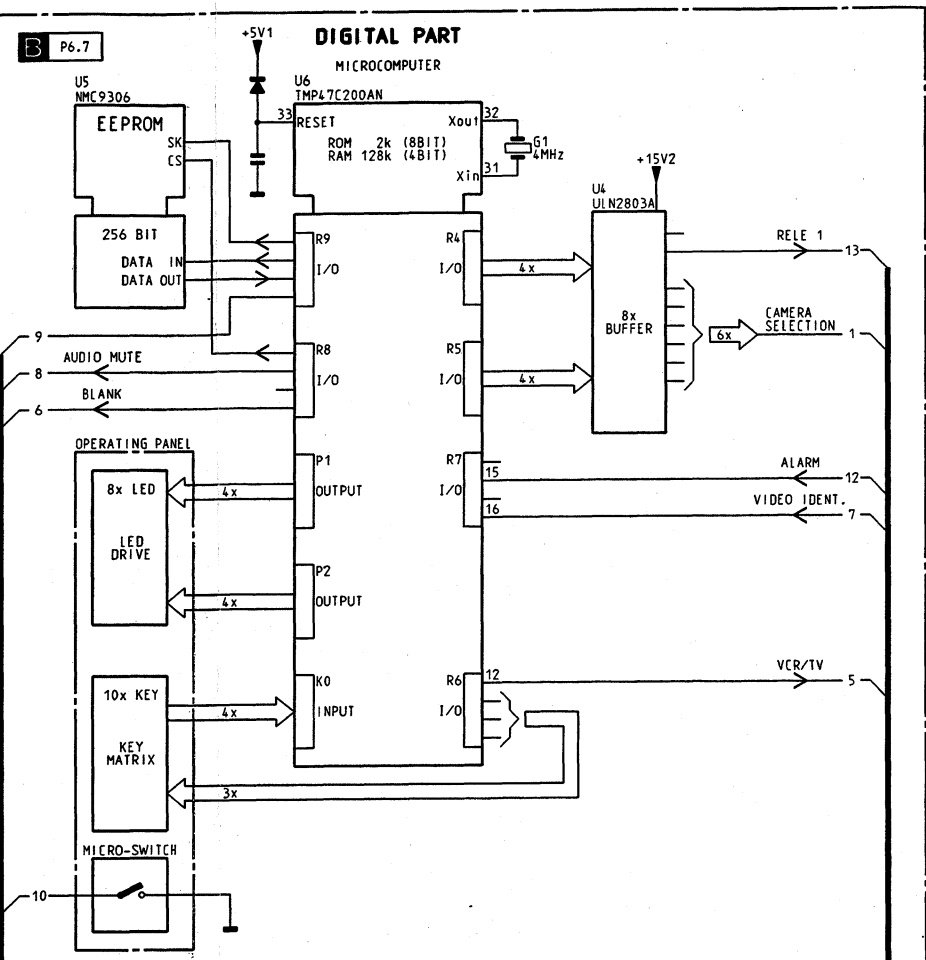
VSS3440

BLOCK DIAGRAM



P6.7

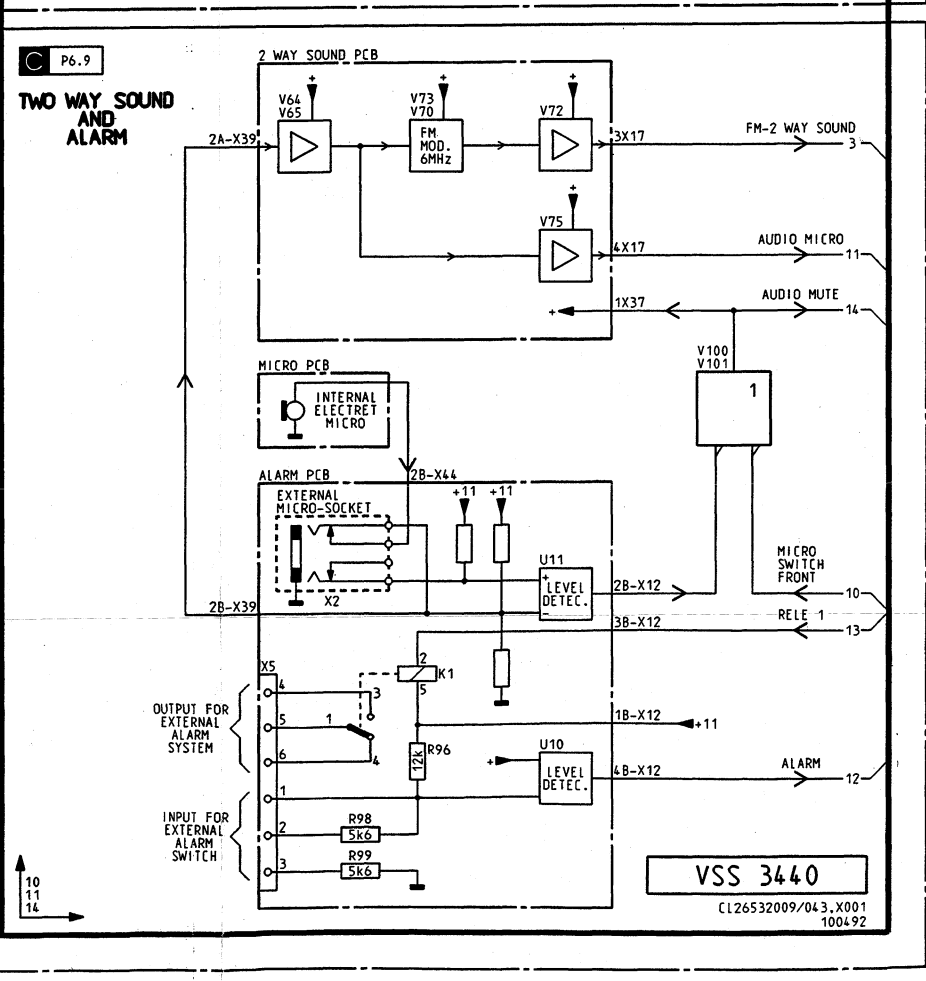
DIGITAL PART

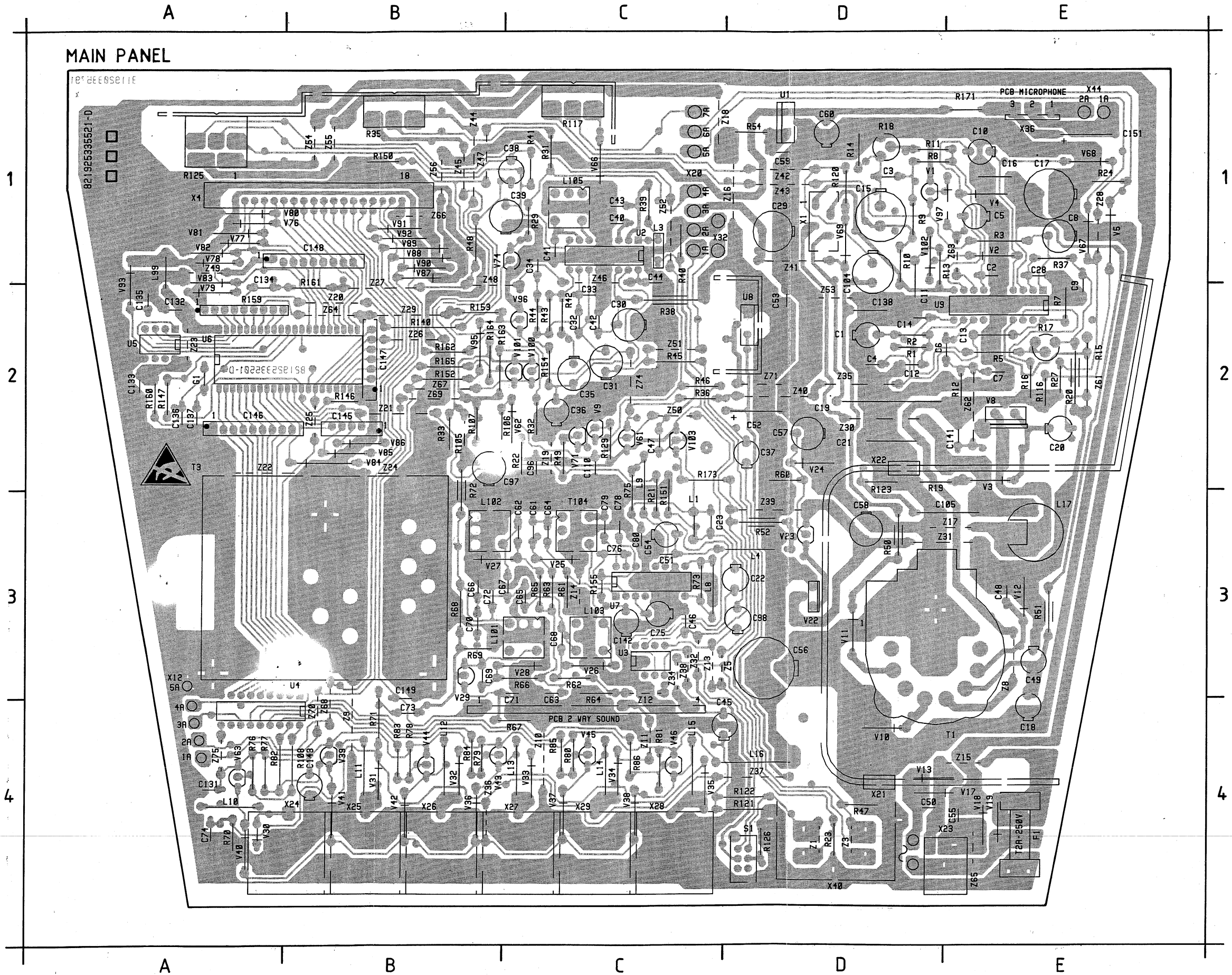


C P6.9

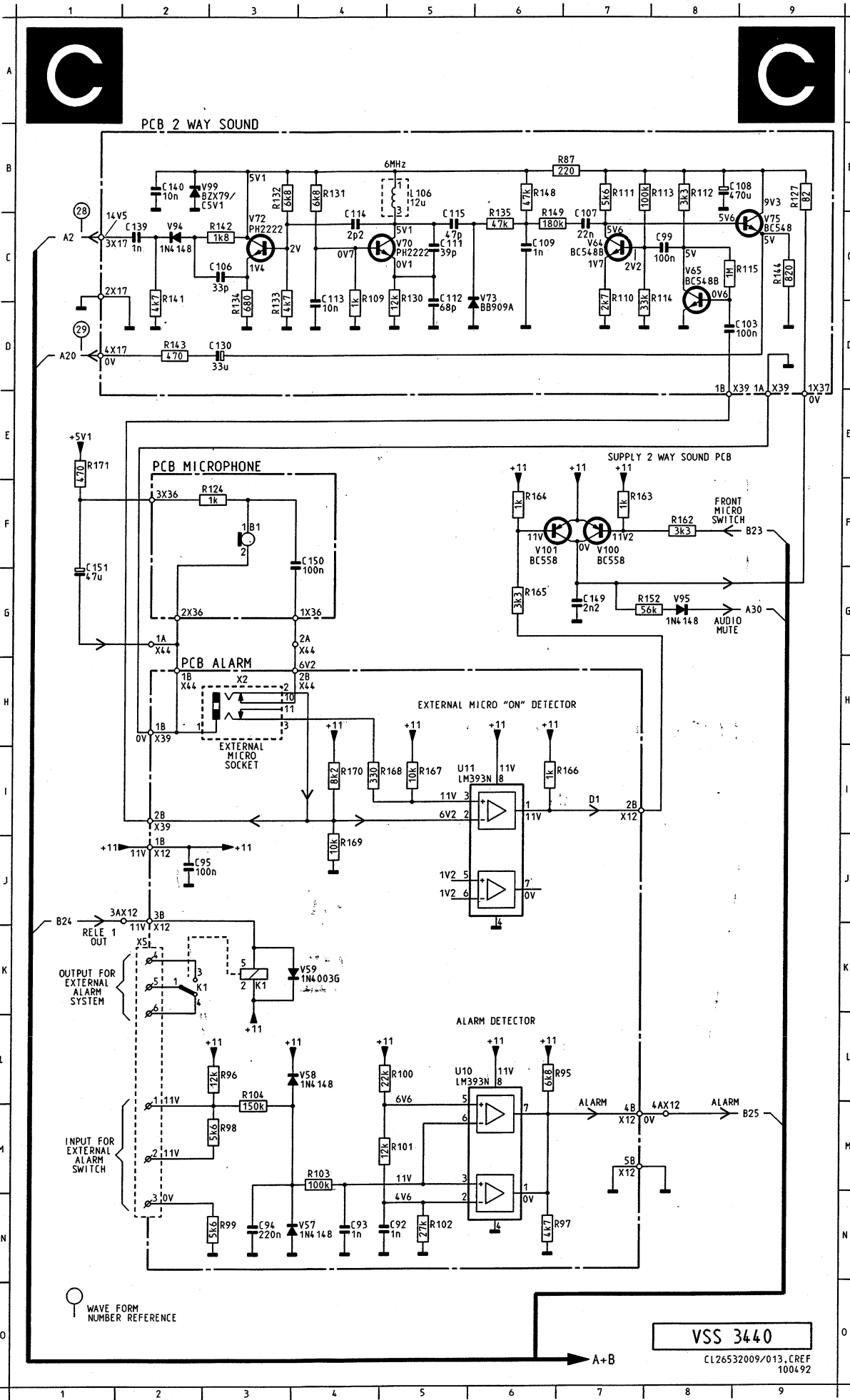
C P6.9

**TWO WAY SOUND
AND
ALARM**

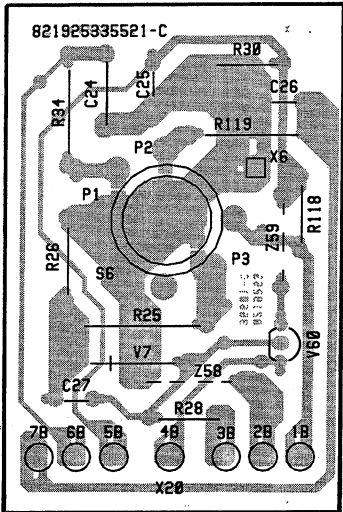




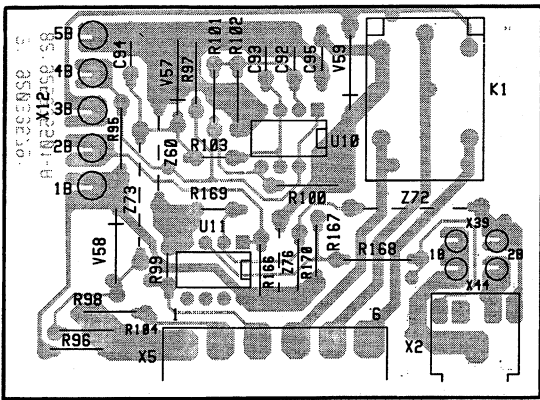
C1	D2	F1	E4	R62	C3	V83	A1
C10	E1	G1	A2	R63	C3	V84	B2
C104	D2	L1	C3	R64	C4	V85	B2
C105	D3	L10	A4	R65	C4	V86	B2
C11	D2	L101	B3	R66	C3	V87	B1
C110	C2	L102	B3	R67	C4	V88	B1
C12	D2	L103	C3	R68	B3	V89	B1
C13	E2	L105	C1	R69	B3	V9	C2
C131	A4	L11	B4	R7	E2	V90	B1
C132	A2	L12	B4	R70	A4	V91	B1
C133	A2	L13	C4	R71	B4	V92	B1
C134	A1	L14	C4	R72	B2	V93	A1
C135	A2	L15	C4	R73	C3	V95	B2
C136	A2	L16	D4	R75	C2	V96	C2
C137	A2	L17	E3	R76	A4	V97	D1
C138	D2	L3	C1	R77	A4	X1	D1
C14	D2	L4	D3	R78	B4	X12	A3
C141	E2	L8	C3	R79	B4	X20	C1
C142	C3	L9	C2	R8	D1	X21	D4
C143	B4	L99	A1	R80	C4	X22	D2
C145	B2	R1	D2	R81	C4	X23	D4
C146	A2	R10	D1	R82	A4	X24	B4
C147	B2	R105	B2	R83	B4	X25	B4
C148	B1	R106	C2	R84	B4	X26	B4
C149	B3	R107	B2	R85	C4	X27	C4
C15	D1	R108	B4	R86	C4	X28	C4
C151	E1	R11	D1	R9	D1	X29	C4
C16	E1	R116	E2	S1	D4	X32	C1
C17	E1	R117	C1	T1	E4	X36	E1
C18	E4	R12	E2	T104	C3	X4	A1
C19	D2	R120	D1	T3	A2	X40	D4
C2	E1	R121	D4	U1	D1	X44	E1
C20	E2	R122	D4	U2	C1	Z1	D4
C21	D2	R123	D2	U3	C3	Z10	C4
C22	D3	R125	A1	U4	B3	Z11	C4
C23	C3	R126	D4	U5	A2	Z12	C4
C28	E1	R129	C2	U6	A2	Z13	C3
C29	D1	R13	D1	U7	C3	Z14	C3
C3	D1	R14	D1	U8	D1	Z15	E4
C30	C2	R140	B2	U9	D2	Z17	D3
C31	C2	R147	A2	V1	D1	Z18	C1
C32	C2	R149	C2	V10	D4	Z19	C2
C33	C2	R15	E2	V100	C2	Z20	B2
C34	C1	R150	B1	V101	C2	Z21	B2
C35	C2	R151	C3	V102	D1	Z22	A2
C36	C2	R152	B2	V103	C2	Z23	A2
C37	D2	R153	B2	V11	D3	Z24	B2
C38	C1	R154	C2	V12	E3	Z25	B2
C39	C1	R155	C3	V13	D4	Z26	B2
C4	D2	R159	A2	V17	E4	Z27	B2
C40	C1	R16	E2	V18	E4	Z28	E1
C41	C1	R160	A2	V19	E4	Z29	B2
C42	C2	R161	B2	V2	E1	Z3	D4
C43	C1	R162	B2	V22	D3	Z30	D2
C44	C1	R163	B2	V23	D3	Z31	D3
C45	C4	R164	B2	V24	D2	Z32	C3
C46	C3	R164	B2	V25	C3	Z34	C3
C47	C2	R165	B2	V26	C3	Z35	D2
C48	E3	R17	E2	V27	B3	Z36	B4
C49	E3	R171	E1	V28	C3	Z37	D4
C50	D4	R173	C2	V29	B4	Z38	C3
C51	C3	R18	D1	V3	E2	Z39	D3
C52	D2	R19	D2	V30	A4	Z40	D2
C53	D1	R2	D2	V31	B4	Z41	D1
C54	C3	R20	E2	V32	B4	Z42	D1
C56	D3	R21	C3	V33	C4	Z43	D1
C57	D2	R22	C2	V34	C4	Z44	B1
C58	D3	R23	D4	V37	C4	Z45	B1
C59	D1	R24	E1	V38	C4	Z46	C1
C6	D2	R27	E2	V39	B4	Z47	B1
C60	D1	R29	C1	V4	E1	Z48	B2
C61	C3	R3	E1	V40	A4	Z49	A1
C62	C3	R31	C1	V41	B4	Z5	D3
C63	C4	R32	C2	V42	B4	Z50	C2
C64	C3	R33	B2	V43	B4	Z51	C2
C65	C3	R35	B1	V44	B4	Z52	C1
C66	B3	R36	C2	V45	C4	Z53	D2
C67	B3	R37	E1	V46	C4	Z54	B1
C68	C3	R38	C2	V5	E1	Z55	B1
C69	B3	R39	C1	V61	C2	Z56	B1
C7	E2	R40	C1	V62	C2	Z61	E2
C70	B3	R41	C1	V63	A4	Z62	E2
C71	C4	R42	C2	V66	C1	Z64	B2
C72	B3	R43	C2	V67	E1	Z65	E4
C73	B4	R44	C2	V68	E1	Z66	B1
C74	A4	R45	C2	V69	D1	Z67	B2
C75	C3	R46	C2	V71	C2	Z68	B4
C76	C3	R47	D4	V74	B1	Z69	B2
C78	C3	R48	B1	V76	B1	Z70	B4
C79	C3	R5	E2	V77	A1	Z71	D2
C8	E1	R50	D3	V78	A1	Z74	C2
C80	C3	R51	E3	V79	A2	Z75	A4
C9	E2	R52	D3	V8	E2	Z8	E3
C96	C2	R54	D1	V80	B1	Z9	B4
C97	B2	R60	D2	V81	A1		
C98	D3	R61	C3	V82	A1		



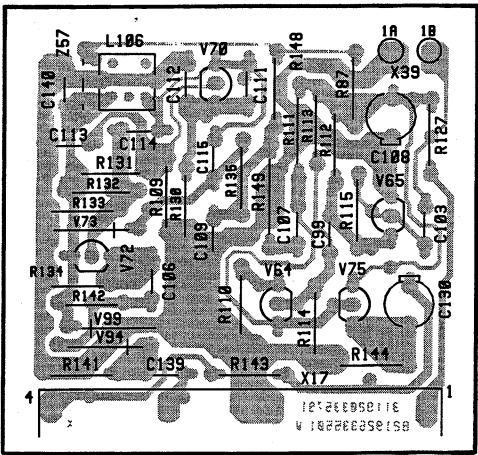
CRT PANEL



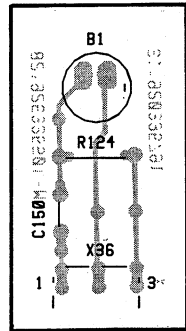
ALARM PANEL



2 WAY SOUND PANEL



MICROPHONE PANEL



1. General

- All controls in minimum position unless otherwise specified
- Test signal: From pattern generator, applied via capacitor of 4.7nF for DC blocking.

2. RF-Amplifier

2.1 Picture RF response

2.1.1 Alignment set up.

- Channel selector switch in position CH4.
- Apply a DC voltage of 7V to pin 14 of U7.
- Inject a sweep signal 50-80MHz to camera input 1, via matching circuit as shown in Fig. 7.1
- Select camera 1.
- Connect oscilloscope to capacitor C80 via matching circuit as shown in Fig. 7.2
- Adjust input signal amplitude so that output on oscilloscope is 1Vpp.

2.1.2 alignment

- Adjust T104, L101 to maximum gain at 62.25MHz for -/00T/01T
67.25MHz for -05R
- Adjust L102 so that:
62.25MHz marker is at -1dB for -/00T/01T
67.25MHz marker is at -1dB for -05R
- Adjust L103 so that:
66.25MHz marker is at -6dB for -/00T
66.50MHz marker is at -6dB for -/01T
71.25MHz marker is at -6dB for -05R
- Repeat above 3 steps until a smooth curve is obtained as shown in Fig. 7.4
- Switch to channel CH3, adjust L102,L103 to make the response curve as close to the nominal value, see Fig. 7.4
- Repeat above steps, to make an optimum compromise of both channel responses.

3. IF Sound Detector

3.1 Alignment set up.

- Test signal: From pattern generator modulated with 1KHz audio signal.
- Connect an oscilloscope at pin 16 of U2 via a matching circuit as shown in Fig. 7.3

3.2 Alignment

- Adjust sound detector coil L105 so that the 1 KHz sine wave reaches maximum amplitude on oscilloscope.

4. Time base

4.1 Alignment set up.

- Supply signal of 625 lines (for -/00T/01T) and 525 lines (for -05R) from pattern generator to camera input 1.
- Brightness control in mid position.

4.2 Line oscillator

- Short circuit capacitor C4 and pin 16 of U6(microprocessor) to ground.

- Adjust R17 so that the picture on the CRT screen is straight.
- Remove the short circuits.

4.3 Frame oscillator

- Adjust the amplitude with R18 so that the circle pattern is symmetrical.

4.4 Picture geometry setting.

- Adjust the edges of the picture parallel to the edges of the mask by turning the deflection coil on the neck of the picture tube.
- Situate the picture symmetrically within mask, with help of the centring magnets on the deflection unit.

5. 2 Way sound board

5.1 Oscillator coil L106

- Connect a counter to panel connection 3-X17 and 2-X17(ground)
- Tune the coil L106 so that the counter reads a frequency of 6.5MHz $\pm$ 5KHz.

5.2 Output cheque

- Connect a low frequency generator to panel connection 2A-X39 and 1A-X39(ground). Output voltage generator 4,5mV-1KHz.
- Connect an oscilloscope to 4-X17 and 2-X17(ground). The sine wave signal on the oscilloscope should be 2,7Vpp $\pm$ 0,2VPP
- The RF output voltage on 3-X17 should be 3mV ($Z_o = 50\Omega$)

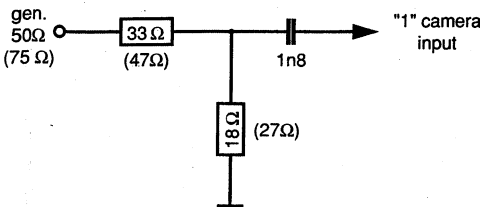


Fig. 7.1

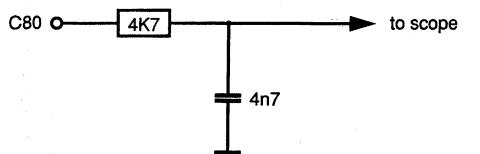


Fig. 7.2

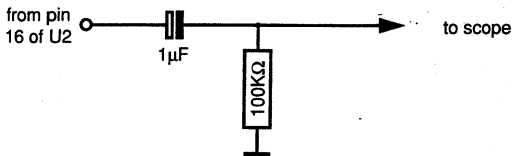


Fig. 7.3

OVERALL PICTURE R.F. CURVE

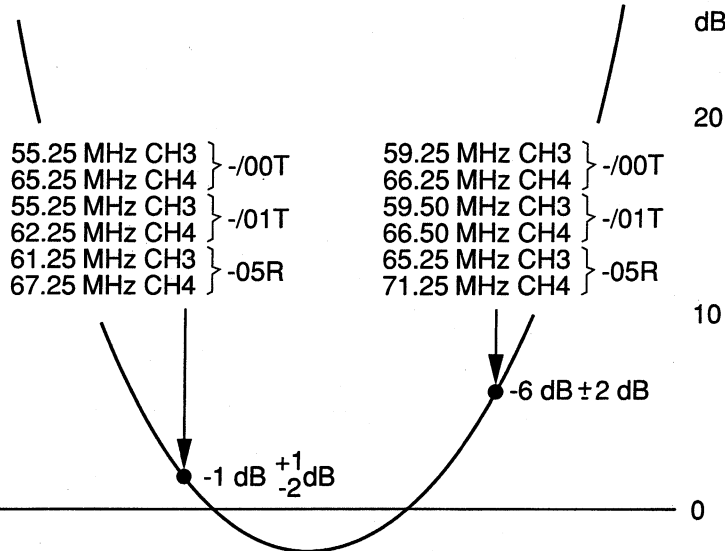


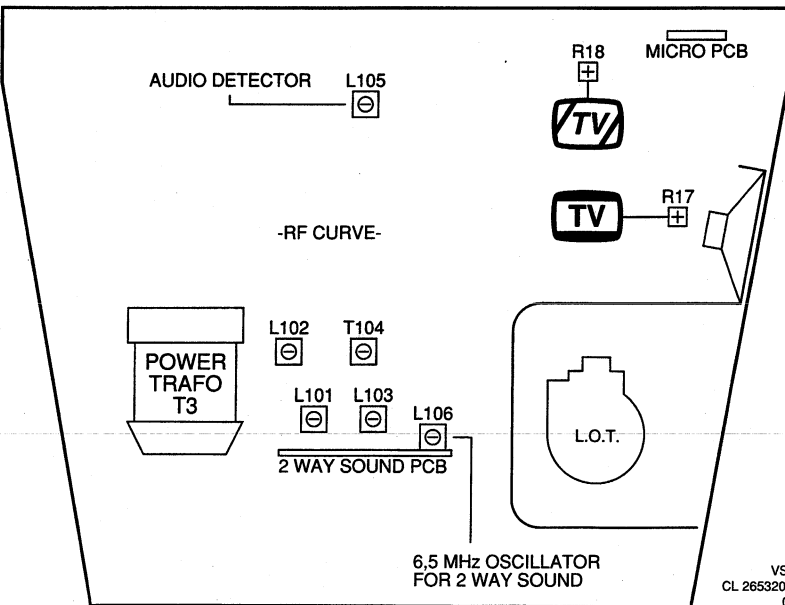
Fig. 7.4

VSS3440
CL 26532009/036-2
090492

VSS3440
CL 26532009/036-1
090492

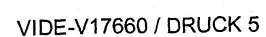
LOCATION OF ADJUSTING COMPONENTS

MAIN PANEL (viewed from the component side)



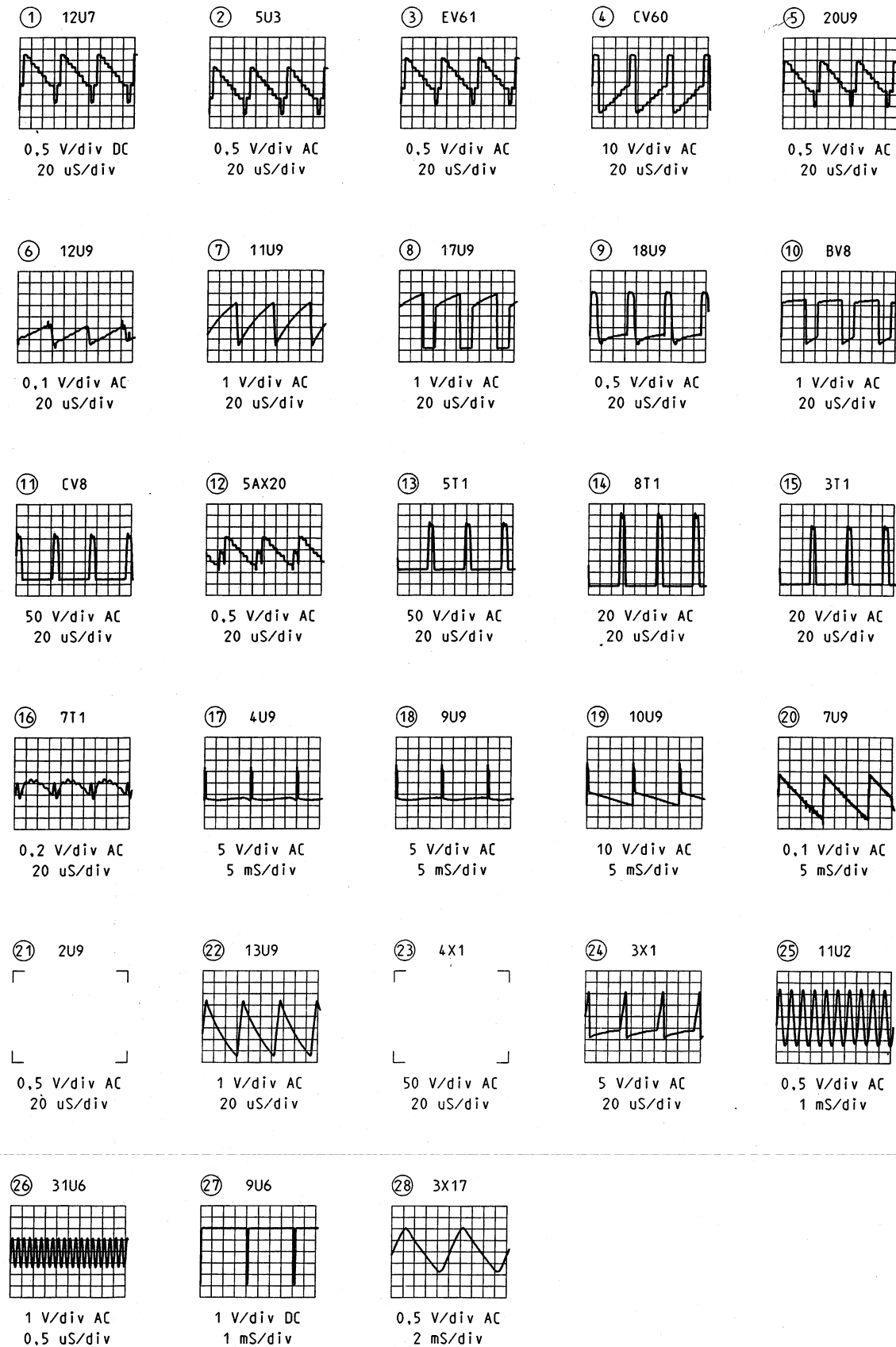
VSS3440
CL 26532009/036
090492

Circuit diagram and Print layout

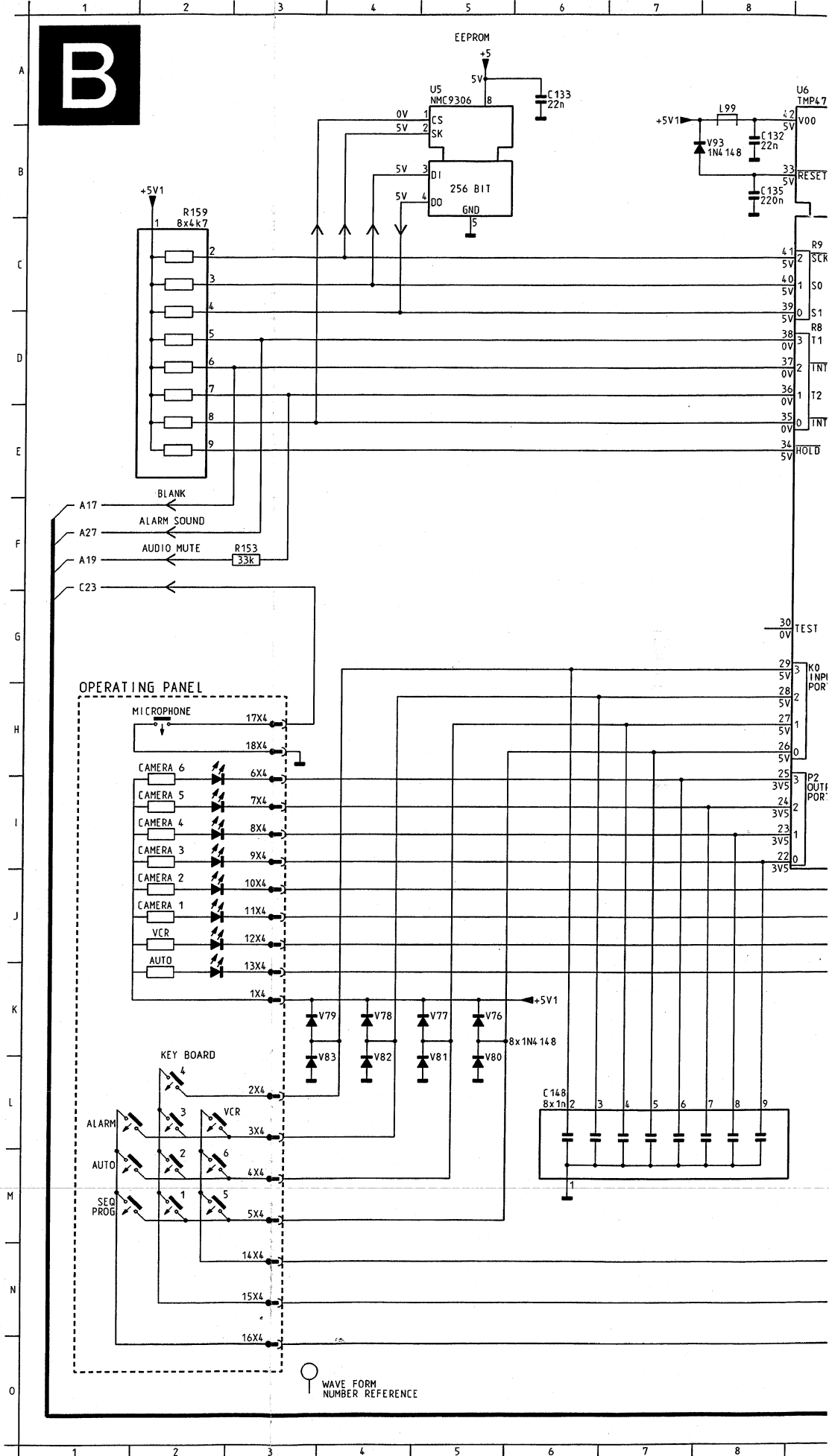


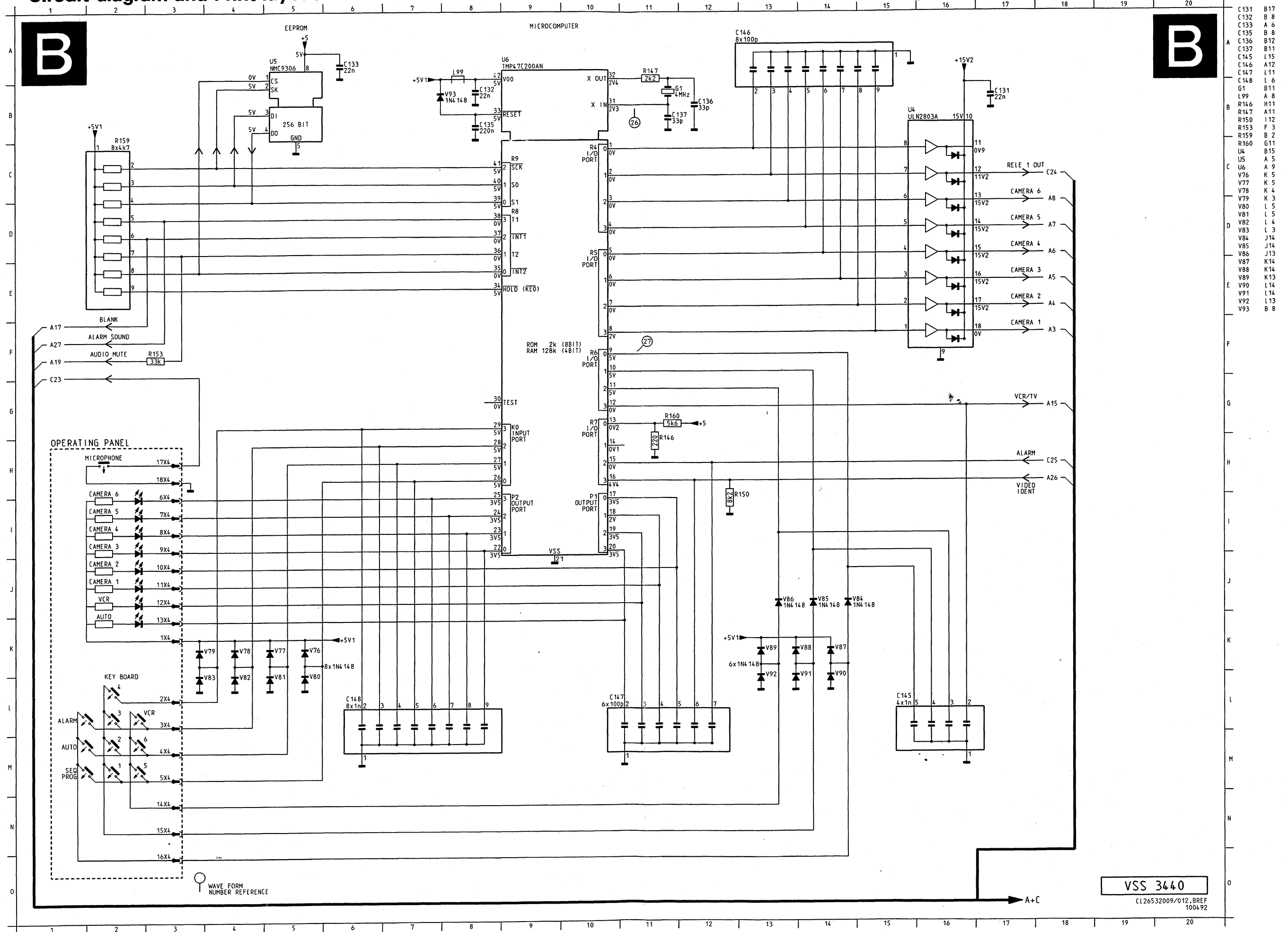
Circuit diagram and Print layout

wave forms



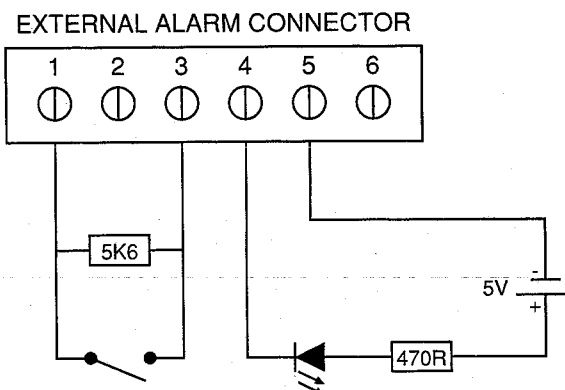
Circuit diagram and Print layout





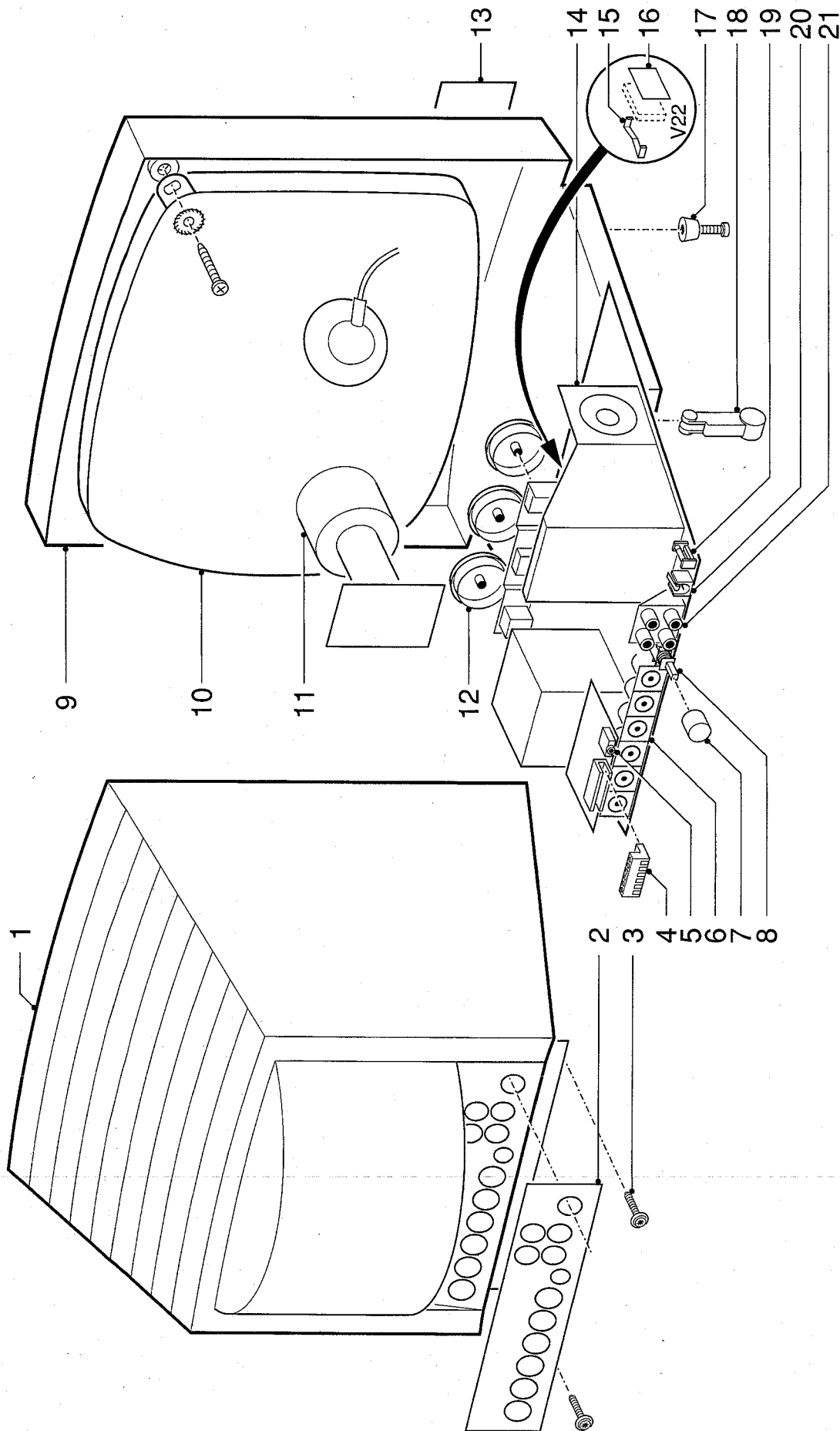
Testing procedure for digital part

1. Connect to external alarm connector the circuit as shown in Fig. 8.1.
2. Apply a signal to "Camera 1", "Camera 3" and Video input connector.
3. Turn on the monitor and make sure that all leds of the membrane push buttons lights up for a moment.
After this, "Auto" and "Camera 1" leds will light on and on the screen will appear the picture coming from "Camera 1" input.
4. Press the "SEQ. PROG." push button.
The "AUTO" led will blink and all the camera leds will light on.
5. Press the "Camera 4", "Camera 5", "Camera 6" push buttons to disable the camera from the scanning sequence. The relative leds will lights off.
6. Hold down the "Auto" push button and verify that only the "Camera 2" led is on.
The "Auto" led remains blinking.
Hold down the "Auto" push button and press the "VCR" push button.
The "Camera 2" led will light off and the "VCR" led will light on.
7. Release the "Auto" push button and make sure that the "Camera 1", "Camera 2" and "Camera 3" leds are on.
The "Auto" led remains blinking.
8. Press the "SEQ. PROG." push button.
The "Auto" led will stop blinking and only "Camera 1" led will be on.
9. Verify that after about 4 seconds the "Camera 1" led light off and the "Camera 2" led light on.
The screen will be blank.
A few moments later "Camera 2" led will start to blink.
The screen remain blank.
10. Verify that after 3 seconds "Camera 2" led light off and "Camera 3" led light on.
A few moment later on the screen will appear the picture coming from "Camera 3" input.
11. Verify after about 4 seconds the "Camera 3" led light off and the "Camera 1" led light on.
A few moments later on the screen will appear the picture coming from "Camera 1" input.
12. Press the "VCR" push button.
The "AUTO" and the "Camera 1" leds will light off and the "VCR" led light on.
A few moments later on the screen will appear the picture coming from the "Video" input.
13. Press the "Alarm" push button.
Verify that the "VCR" led light off and the "Camera 1" led starts blinking.
A sound will be heard from the loudspeaker of the monitor.
The led connected to the external alarm connectors will light on.
A few moments later on the screen will appear the picture coming from "Camera 1" input.
14. Verify that about after 15 seconds the led connected to the external alarm connector lights off.
15. Press any push button.
The "Camera 1" led will light off and the "VCR" led will light on.
A sound coming from the monitor will be stopped.
A few moments later on the screen will appear the picture coming from the "Video" input.
16. Switch on the external alarm switch.
Verify that the "VCR" led light off and the "Camera 1" led start blinking.
A sound will be coming from the monitor.
The led connected to the external alarm connectors will light on.
A few moments later on the screen will appear the picture coming from "Camera 1" input.
17. Press any push button.
Verify that "Camera 1" led remain blinking and the "VCR" led light on.
A sound coming from the monitor will be stopped.
The led connected to the external alarm connectors will lights off.
A few moments later on the screen will appear the picture coming from the "Video" input.
18. Switch off the external alarm switch.
The "Camera 1" led will lights off.
19. Turn-off the monitor.
After a few seconds turn-on the monitor.
Verify that only "Camera 1" led is on.
A few moments later on the screen will appear the picture coming from "Camera 1" input.
20. Turn-off the monitor.



VSS3440
CL 26532009/038
090492

Exploded view



VSS3440
CL 26532009/018
120292

Spare parts list

VSS3440

10.1

Mechanical parts, Electrical parts

MECHANICAL PARTS (See exploded view)			ELECTRICAL PARTS		
ITEM	SERVICE CODE NR	DESCRIPTION	MISCELLANEOUS		
1	4822 432 10972	REAR COVER /..T	B001	4822 242 30257	MICROPHONE
1	4822 432 10973	REAR COVER -..R	F001▲	4822 253 50143	FUSE T 500MA -..R
2	4822 454 12818	REAR TEXTPL./..T	F201▲	5322 253 30368	FUSE T 2A
2	4822 454 12822	REAR TEXTPL.-..R	G301	4822 242 72579	RESONATOR 4MHZ
3	4822 502 30096	SCREW 3.5X19	K401▲	4822 281 50169	12V RELAY
4	4822 267 41053	CONNECTOR 6P	S501	5322 277 21222	SWITCH CH3/CH4
5	4822 267 31487	PHONE JACK X2	TRANSFORMERS		
6	4822 265 10035	CON. X24..X29	T001▲	4822 140 10439	EHT TRAF0
7	4822 410 61891	PUSH BUTTON /..T	T003▲	4822 146 21666	MAINS TR./00/01
7	4822 410 61892	PUSH BUTTON -..R	T003▲	4822 146 21665	MAINS TRAF0 -05
8	5322 277 21222	SWITCH S1	T104	4822 156 21358	COIL 0.2μH
9	4822 451 21042	FRONT MASK /..T	COILS		
9	4822 451 11002	FRONT MASK -..R	L001	4822 157 51511	Induct.12μH /00/01
10▲	4822 131 20473	PICTURE TUBE 12"	L001	4822 157 51612	INDUCT. 18μH /05
11▲	4822 150 10172	DEFLECTION UNIT	L003	4822 121 40543	Cer. filt.5.5MHZ/00
12	4822 413 31699	KNOB /..T	L003	4822 242 70279	Cer. Fil.6.0MHZ /01
12	4822 413 31701	KNOB -..R	L003	4822 242 70737	Cer. Fil.4.5MHZ -05
13	4822 432 10974	FRONT PANEL /..T	L004	4822 157 53139	COIL 4.7μH
13	4822 432 10977	FRONT PANEL -..R	L008	4822 157 50963	COIL 2.2μH
14	4822 240 40203	LOUDSPEAKER	L009	4822 157 53139	COIL 4.7μH
15	4822 255 40128	SPRING CLIP	L010	4822 157 53139	COIL 4.7μH
16	4822 255 40133	INSULATING PLATE	L011	4822 157 53139	COIL 4.7μH
17	4822 462 41921	FOOT	L012	4822 157 53139	COIL 4.7μH
18A	4822 462 41922	FOOT RIGHT /..T	L013	4822 157 53139	COIL 4.7μH
18A	4822 462 41924	FOOT RIGHT -..R	L014	4822 157 53139	COIL 4.7μH
18B	4822 462 41923	FOOT LEFT /..T	L015	4822 157 53139	COIL 4.7μH
18B	4822 462 41925	FOOT LEFT -..R	L016	4822 157 63936	COIL 22μH
19	4822 492 60063	SPRING FOR FUSE	L017	4822 157 63909	LINEARITY CORR.
20	4822 265 20259	DC SOCKET X23	L099	4822 526 10574	BEAD
21	4822 267 20284	RCA JACK X40	L101	4822 156 21355	COIL 0.62μH
			L102	4822 156 21356	COIL 0.3μH
			L103	4822 156 21357	COIL 0.26μH
			L105	4822 156 21233	COIL 9.6μH /00
			L105	4822 157 51751	COIL 9.6μH /01
			L105	4822 156 21164	COIL 15μH /05
			L106	4822 156 21667	COIL VARIABLE
			-II-		
			C001	4822 124 40244	2μF2 63V
			C002	5322 122 32052	680pF 10% 100V
			C003	5322 121 42925	150nF 10% 100V
			C004	4822 122 31316	100pF 100V
			C005	4822 124 40435	10μF 50V
			C006	4822 121 41922	22nF 10% 250V
			C007	4822 121 41922	22nF 10% 250V
			C008	4822 124 40207	100μF 25V
			C009	4822 126 12158	100nF 100V
			C010	4822 124 40433	47μF 25V
			C011	4822 121 41672	100nF 10% 100V
			C012	4822 121 42766	12nF 10% 400V
			C013	4822 121 41673	220nF 10% 100V
			C014	4822 121 42937	2nF7 2% 250V
			C015	4822 124 40184	1000μF 10V
			C016	4822 121 41672	100nF 10% 100V
			C017	4822 124 40646	470μF 40V
			C018	4822 124 40804	22μF 40V
			C019	4822 121 41893	3μF9 10% 100V
			C020	4822 124 40244	2μF2 63V
			C021	4822 121 70111	20nF 5% 630V
			C022	4822 124 40248	10μF 63V
			C023	4822 122 31349	68pF 100V /00/05
			C023	4822 122 32027	56pF 100V /01
			C024	4822 121 41689	100nF 10% 250V
			C025	5322 122 32799	390pF 10% 100V
			C026	4822 121 41984	47nF 10% 100V
			C027	5322 121 42925	150nF 10% 100V
			C028	5322 121 42925	150nF 10% 100V
			C029	4822 124 80143	4μF7 200V
			C030	4822 124 41393	220μF 25V
			C031	4822 124 41393	220μF 25V
			C032	5322 122 32311	470pF 10% 100V
			C033	5322 122 32332	1nF5 10% 100V
			C034	4822 121 41673	220nF 10% 100V
			C035	4822 124 40804	22μF 63V
			C036	4822 124 40433	47μF 25V
			C037	4822 124 40242	1μF 63V
			C038	4822 124 40242	1μF 63V
			C039	4822 124 40804	22μF 63V
			C040	4822 122 30103	22nF -20+80% 63V
			C041	4822 122 31052	8pF2 100V
			C042	4822 122 30103	22nF -20+80% 63V
			C043	4822 126 12159	47nF 100V
			C044	4822 122 31429	6nF8 -20+80% 100V
			C045	4822 124 40248	10μF 63V
			C046	4822 126 12158	100nF 100V
			C047	4822 122 31061	18pF 100V
			C048	4822 122 40112	560pF 10% 500V
			C049	4822 124 40433	47μF 25V
			C050	5322 122 32818	2nF2 10% 100V
			C051	5322 122 32261	4nF7 10% 100V
			C052	4822 124 20697	10μF 25V
			C053	4822 126 12158	100nF 100V
			C054	4822 124 40433	47μF 25V
			C055	5322 122 32818	2nF2 10% 100V
			C056	4822 124 40785	3300μF 25V
			C057	4822 124 40849	330μF 25V
			C058	4822 124 40849	330μF 25V
			C059	4822 126 12158	100nF 100V
			C060	4822 124 40242	1μF 63V
			C061	4822 122 31052	8pF2 100V
			C062	4822 122 31052	8pF2 100V /00/01
			C062	4822 122 31049	6pF8 100V /05
			C063	4822 122 31414	10nF -20+80% 100V
			C064	4822 122 31038	2pF7 100V
			C065	5322 122 32163	5pF6 100V
			C066	5322 122 32163	5pF6 100V
			C067	4822 122 31049	6pF8 100V
			C068	4822 122 31049	6pF8 100V /00/01
			C068	5322 122 32163	5pF6 100V /05
			C069	5322 122 34107	3pF9 100V
			C070	5322 122 34107	3pF9 100V
			C071	4822 122 31414	10nF -20+80% 100V
			C072	4822 122 31414	10nF -20+80% 100V

Spare parts list

Electrical parts (continued)

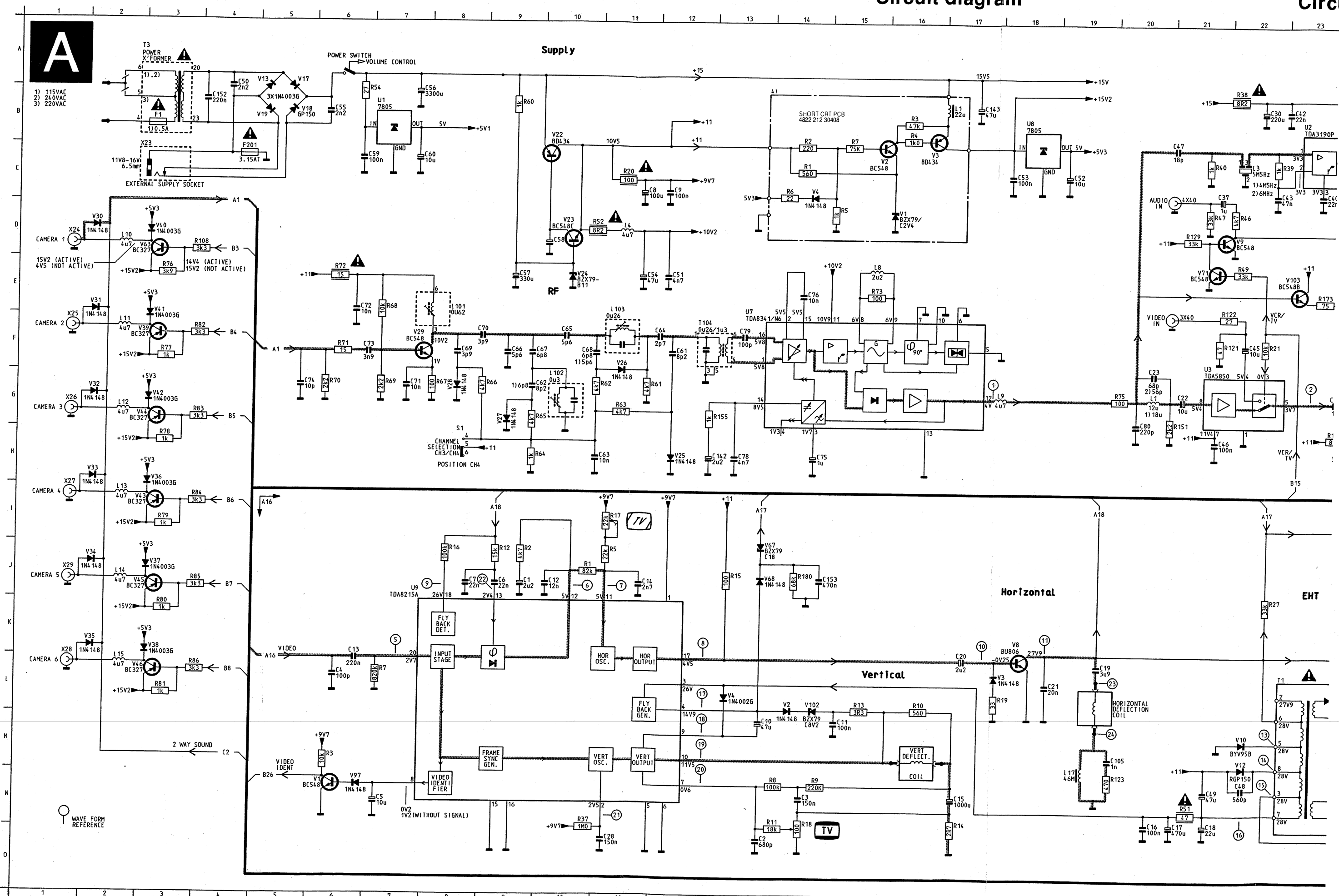
C073	5322 122 32779	3nF9 10% 100V	R011	4822 116 52251	18kΩ 5% 0.5W	R085	4822 116 52269	3kΩ3 5% 0.5W
C074	4822 122 32185	10pF 100V	R012	4822 116 52244	15kΩ 5% 0.5W	R086	4822 116 52269	3kΩ3 5% 0.5W
C075	4822 124 40242	1μF 63V	R013	5322 116 53564	3Ω3 5% 0.5W	R087	4822 116 52215	220Ω 5% 0.5W
C076	4822 122 31414	10nF -20+80% 100V	R014	4822 116 81844	207 5% 0.5W	R095	4822 116 52296	6kΩ8 5% 0.5W
C078	5322 122 32261	4nF7 10% 100V	R015	4822 053 11101	100Ω 5% 1.6W	R096	4822 050 21203	12kΩ 5% 0.5W
C079	4822 122 31316	100pF 100V	R016	4822 116 52234	100kΩ 5% 0.5W	R097	4822 116 52283	4kΩ7 5% 0.5W
C080	5322 122 32334	220pF 10% 100V	R017	4822 100 11873	Tr.pot. 22kΩ 20%	R098	4822 116 52289	5kΩ6 5% 0.5W
C092	5322 122 32331	1nF 10% 100V	R018	4822 100 20857	Tr.pot. 100Ω 20%	R099	4822 050 25602	5kΩ6 5% 0.4W
C093	5322 122 32331	1nF 10% 100V	R019	4822 116 52191	33Ω 5% 0.5W	R100	4822 116 52257	22kΩ 5% 0.5W
C094	4822 121 41673	220nF 10% 100V	R020▲	4822 052 10101	100Ω 5% 0.33W	R101	4822 050 21203	12kΩ 5% 0.5W
C095	4822 126 12158	100nF 100V	R021	4822 116 52233	10kΩ 5% 0.5W	R102	4822 116 52264	27kΩ 5% 0.5W
C096	4822 126 12158	100nF 100V	R022	4822 116 52226	560Ω 5% 0.5W	R103	4822 050 21004	100kΩ 5% 0.4W
C097	4822 124 40181	220μF 10V	R023	4822 116 52215	220Ω 5% 0.5W	R104	4822 050 11504	150kΩ 5% 0.5W
C098	4822 124 40242	1μF 63V	R024	4822 050 14704	470kΩ 5% 0.5W	R105	4822 116 52205	1kΩ1 5% 0.5W
C099	4822 126 12158	100nF 100V	R025	4822 116 83703	150Ω 10%	R106	4822 050 14704	470kΩ 5% 0.5W
C103	4822 126 12158	100nF 100V	R026	4822 116 52292	560kΩ 5% 0.5W	R107	4822 050 11002	1kΩ 5% 0.5W
C104	4822 124 41833	10μF 20% 160V	R027	4822 116 52271	33kΩ 5% 0.5W	R108	4822 116 52269	3kΩ3 5% 0.5W
C105	4822 121 43066	1nF 5% 400V	R028	4822 116 52233	10kΩ 5% 0.5W	R109	4822 050 11002	1kΩ 5% 0.5W
C106	5322 122 32072	33pF 100V	R029	4822 116 52215	220Ω 5% 0.5W	R110	4822 116 52263	2kΩ7 5% 0.5W
C107	4822 122 30103	22nF -20+80% 63V	R030	4822 116 52222	390Ω 5% 0.5W	R111	4822 116 52289	5kΩ6 5% 0.5W
C108	4822 124 40433	47μF 25V	R031	4822 116 52211	150Ω 5% 0.5W	R112	4822 116 52269	3kΩ3 5% 0.5W
C109	5322 122 32331	1nF 10% 100V	R032	4822 050 11002	1kΩ 5% 0.5W	R113	4822 116 52234	100kΩ 5% 0.5W
C110	5322 122 32072	33pF 100V	R033	4822 116 52226	560Ω 5% 0.5W	R114	4822 116 52271	33kΩ 5% 0.5W
C111	4822 122 31069	39pF 100V	R034	4822 116 52271	33kΩ 5% 0.5W	R115	4822 116 52235	1MΩ 5% 0.5W
C112	4822 122 31349	68pF 100V	R035	4822 100 20858	1kΩ POTMETER	R116	4822 116 52251	18kΩ 5% 0.5W
C113	4822 122 31414	10nF -20+80% 100V	R036	4822 050 11002	1kΩ 5% 0.5W	R117	4822 100 20859	Pot. meter 470kΩ
C114	4822 122 31036	2pF2 100V	R037	4822 116 52235	1MΩ 5% 0.5W	R118	4822 116 52249	1kΩ8 5% 0.5W
C115	4822 122 31072	47pF 100V	R038▲	4822 052 10828	8Ω2 5% 0.33W	R119	4822 116 52244	15kΩ 5% 0.5W
C130	4822 124 40272	33μF 16V	R039	4822 050 11002	1kΩ 5% 0.5W	R120	4822 050 11304	130kΩ 5% 0.5W
C131	4822 122 30103	22nF -20+80% 63V	R040	4822 050 11002	1kΩ 5% 0.5W	R121	4822 050 12709	27Ω 5% 0.5W
C132	4822 122 30103	22nF -20+80% 63V	R041	4822 116 52263	2kΩ7 5% 0.5W	R122	4822 116 52195	47Ω 5% 0.5W
C133	4822 122 30103	22nF -20+80% 63V	R042	4822 050 28209	82Ω 5% 0.5W	R123	4822 116 52224	470Ω 5% 0.5W
C134	5322 122 32335	330pF 10% 100V	R043	4822 116 52303	8kΩ2 5% 0.5W	R124	4822 050 11002	1kΩ 5% 0.5W
C135	4822 121 42408	220nF 10% 63V	R044	4822 116 81154	2Ω2 5% 0.5W	R125	4822 100 90103	10kΩ Pot. +sw
C136	5322 122 32072	33pF 100V	R045	4822 116 52231	820Ω 5% 0.5W	R127	4822 050 28209	82Ω 5% 0.5W
C137	5322 122 32072	33pF 100V	R046	4822 116 52283	4kΩ7 5% 0.5W	R129	4822 116 52271	33kΩ 5% 0.5W
C138	4822 121 41689	100nF 10% 250V	R047	4822 116 52271	33kΩ 5% 0.5W	R130	4822 050 21203	12kΩ 5% 0.5W
C139	4822 122 33399	1nF -20+80% 63V	R048	4822 116 52233	10kΩ 5% 0.5W	R131	4822 116 52296	6kΩ8 5% 0.5W
C140	4822 122 31414	10nF -20+80% 100V	R049	4822 116 52271	33kΩ 5% 0.5W	R132	4822 116 52296	6kΩ8 5% 0.5W
C141	4822 122 31237	82pF 100V	R050▲	4822 052 10159	15Ω 5%	R133	4822 116 52283	4kΩ7 5% 0.5W
C142	4822 124 40244	2μF2 63V	R051▲	4822 052 11339	33Ω 5% 0.5W	R134	4822 116 52228	680Ω 5% 0.5W
C143	4822 124 40433	47μF 25V	R052▲	4822 052 10828	8Ω 2 5% 0.33W	R135	4822 116 52284	47kΩ 5% 0.5W
C145	4822 122 90109	Network 4X1nF	R054	4822 050 12709	27Ω 5% 0.5W	R140	4822 116 52271	33kΩ 5% 0.5W
C146	4822 122 90108	Network 8X100pF	R056	4822 050 11002	1kΩ 5% 0.5W	R141	4822 116 52283	4kΩ7 5% 0.5W
C147	4822 122 90106	Network 6X100pF	R061	4822 116 52283	4kΩ7 5% 0.5W	R142	4822 116 52249	1kΩ8 5% 0.5W
C148	4822 122 90107	Network 8X1nF	R062	4822 116 52283	4kΩ7 5% 0.5W	R143	4822 116 52224	470Ω 5% 0.5W
C149	5322 122 32818	2nF2 10% 100V	R063	4822 116 52283	4kΩ7 5% 0.5W	R144	4822 116 52231	820Ω 5% 0.5W
C150	4822 126 12158	100nF 100V	R064	4822 050 11002	1kΩ 5% 0.5W	R146	4822 116 52215	220Ω 5% 0.5W
C151	4822 124 20678	47μF 10V	R065	4822 116 52283	4kΩ7 5% 0.5W	R147	4822 116 52256	2kΩ2 5% 0.5W
C152	5322 121 42025	220nF 10% 250V	R066	4822 116 52175	100Ω 5% 0.5W	R148	4822 116 52284	47kΩ 5% 0.5W
			R067	4822 116 52233	10kΩ 5% 0.5W	R149	4822 116 52252	180kΩ 5% 0.5W
			R068	4822 116 52256	2kΩ2 5% 0.5W	R150	4822 116 52303	8kΩ2 5% 0.5W
			R069	4822 116 52256	2kΩ2 5% 0.5W	R151	4822 116 52256	2kΩ2 5% 0.5W
			R070	4822 116 52182	15Ω 5% 0.5W	R152	4822 116 52291	56kΩ 5% 0.5W
			R071	4822 052 10159	15Ω 5%	R153	4822 116 52271	33kΩ 5% 0.5W
			R072▲	4822 052 10159	15Ω 5%	R154	4822 050 11002	1kΩ 5% 0.5W
			R073	4822 116 52175	100Ω 5% 0.5W	R155	4822 050 11002	1kΩ 5% 0.4W
			R075	4822 116 52175	100Ω 5% 0.5W	R159	5322 116 90624	Network 8X4kΩ7
			R076	4822 116 52276	3kΩ9 5% 0.5W	R160	4822 116 52289	5kΩ6 5% 0.5W
			R077	4822 050 11002	1kΩ 5% 0.5W	R161	4822 050 14704	470kΩ 5% 0.5W
			R078	4822 050 11002	1kΩ 5% 0.5W	R162	4822 116 52269	3kΩ3 5% 0.5W
			R079	4822 050 11002	1kΩ 5% 0.5W	R163	4822 050 11002	1kΩ 5% 0.5W
			R080	4822 050 11002	1kΩ 5% 0.5W	R164	4822 050 11002	1kΩ 5% 0.5W
			R081	4822 050 11002	1kΩ 5% 0.5W	R165	4822 116 52269	3kΩ3 5% 0.5W
			R082	4822 116 52269	3kΩ3 5% 0.5W			
			R083	4822 116 52269	3kΩ3 5% 0.5W			
			R084	4822 116 52269	3kΩ3 5% 0.5W			

R001	4822 116 52304	82kΩ 5% 0.5W
R002	4822 116 52283	4kΩ7 5% 0.5W
R003	4822 116 52233	10kΩ 5% 0.5W
R005	4822 116 52257	22kΩ 5% 0.5W
R007	4822 050 18204	820kΩ 5% 0.5W
R008	4822 116 52234	100kΩ 5% 0.5W
R009	4822 116 52258	220kΩ 5% 0.5W
R010	4822 116 52226	560Ω 5% 0.5W

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R166	4822 050 11002	1kΩ 5% 0.5W
R167	4822 116 52233	10kΩ 5% 0.5W
R168	4822 116 52219	330Ω 5% 0.5W
R169	4822 050 21003	10kΩ 5% 1/8W
R170	4822 116 52303	8kΩ 2 5% 0.5W
R171	4822 116 52224	470Ω 5% 0.5W
R172	4822 111 50603	1MΩ 5 10% 0.5W
R173	4822 116 52201	75Ω 5% 0.5W
U001	4822 209 80817	L7805CV
U002	4822 209 81194	TDA3190P
U003	4822 209 83119	TDA5850
U004	5322 209 86372	ULN2803A
U005	4822 209 51569	NMC9306N
U006	4822 209 31372	TMP47C200AN
U007	4822 209 72746	TDA8341/N6
U008	4822 209 80817	L7805CV
U009	4822 209 31254	TDA8215A
U010	4822 209 80797	LM393N
U011	4822 209 80797	LM393N
V001	4822 130 40938	BC548
V002	4822 130 30621	1N4148
V003	4822 130 30621	1N4148
V004	5322 130 30684	1N4002G
V005	4822 130 42489	BYD33G
V007	4822 130 30621	1N4148
V008	5322 130 60135	BU806
V009	4822 130 40938	BC548
V010	4822 130 41486	BYV95B
V011	4822 130 42489	BYD33G
V012	5322 130 31971	RGP15D
V013	4822 130 31878	1N4003G
V017	4822 130 31878	1N4003G
V018	4822 130 31173	GP15D
V019	4822 130 31878	1N4003G
V022	4822 130 40995	BD434
V023	4822 130 44196	BC548C
V024	4822 130 34488	BZX79-B11
V025	4822 130 30621	1N4148
V026	4822 130 30621	1N4148
V027	4822 130 30621	1N4148
V028	4822 130 30621	1N4148
V029	4822 130 40938	BC548
V030	4822 130 30621	1N4148
V031	4822 130 30621	1N4148
V032	4822 130 30621	1N4148
V033	4822 130 30621	1N4148
V034	4822 130 30621	1N4148
V035	4822 130 30621	1N4148
V036	4822 130 31878	1N4003G
V037	4822 130 31878	1N4003G
V038	4822 130 31878	1N4003G
V039	4822 130 40854	BC327
V040	4822 130 31878	1N4003G
V041	4822 130 31878	1N4003G
V042	4822 130 31878	1N4003G
V043	4822 130 40854	BC327
V044	4822 130 40854	BC327
V045	4822 130 40854	BC327
V046	4822 130 40854	BC327
V057	4822 130 30621	1N4148
V058	4822 130 30621	1N4148
V059	4822 130 31878	1N4003G
V060	4822 130 41782	BF422
V061	4822 130 44196	BC548C
V062	5322 130 80617	BAT8
V063	4822 130 40854	BC327
V064	4822 130 40937	BC548B
V065	4822 130 40937	BC548B
V066	4822 130 30621	1N4148
V067	4822 130 31024	BZX79-C18
V068	4822 130 30621	1N4148
V069	4822 130 34142	BZX79-C33
V070	5322 130 42713	PH2222
V071	4822 130 40938	BC548
V072	5322 130 42713	PH2222
V073	5322 130 32162	BB909A
V074	4822 130 40938	BC548
V075	4822 130 40938	BC548
V076	4822 130 30621	1N4148
V077	4822 130 30621	1N4148
V078	4822 130 30621	1N4148
V079	4822 130 30621	1N4148
V080	4822 130 30621	1N4148
V081	4822 130 30621	1N4148
V082	4822 130 30621	1N4148
V083	4822 130 30621	1N4148
V084	4822 130 30621	1N4148
V085	4822 130 30621	1N4148
V086	4822 130 30621	1N4148
V087	4822 130 30621	1N4148
V088	4822 130 30621	

Circuit diagram



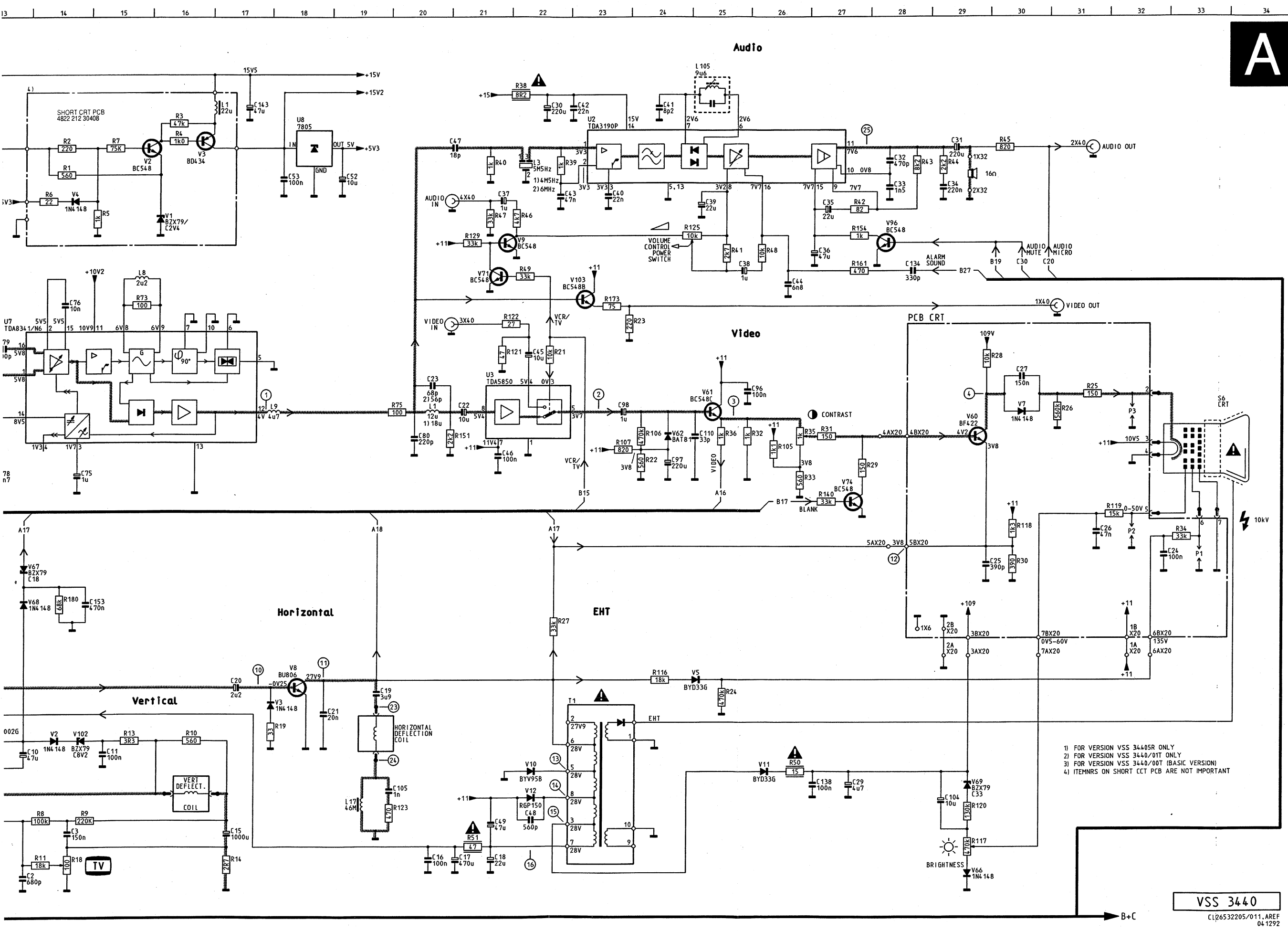
Circuit diagram

Circ

Circuit diagram

Circuit diagram

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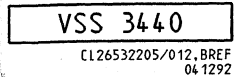


C1	J 9	R9	N14	V18	B 5
C2	O13	R10	L16	V19	B 5
C3	N14	R11	N14	V22	B10
C4	L 6	R12	J 9	V23	D10
C5	N 7	R13	L15	V24	E10
C6	J 9	R14	N17	V25	H12
C7	J 8	R15	J13	V26	F11
C8	C11	R16	J 8	V27	G 9
C9	C12	R17	L11	V28	G 8
C10	M13	R18	N14	V29	F 7
C11	M15	R19	L18	V30	D 2
C12	J10	R20	C11	V31	E 2
C13	K 6	R21	F22	V32	G 2
C14	N11	R22	H24	V33	H 2
C15	N17	R23	E24	V35	J 2
C16	N20	R25	L25	V35	K 2
C17	N21	R25	G31	V36	H 3
C18	N21	R26	G31	V37	J 3
C19	L19	R27	J22	V38	K 3
C20	K17	R28	F30	V39	F 3
C21	L18	R29	H27	V40	D 3
C22	G21	R30	I30	V41	F 3
C23	F20	R31	G27	V42	G 3
C24	I32	R32	G26	V43	I 3
C25	I30	R33	H26	V44	G 3
C26	I31	R34	I33	V45	J 3
C27	F30	R35	G26	V46	L 3
C28	O11	R36	G25	V60	G29
C29	M27	R37	N10	V61	G25
C30	B22	R38	B22	V62	G24
C31	B29	R39	C22	V63	D 3
C32	C28	R40	C21	V66	O29
C33	C28	R41	D25	V67	J13
C34	C29	R42	C27	V68	J13
C35	C27	R43	C28	V69	M29
C36	D27	R45	B30	V71	E21
C37	C21	R46	D22	V74	H27
C38	E25	R47	D21	V96	D28
C39	C25	R48	D26	V97	N 6
C40	C23	R49	E22	V102	L14
C41	B24	R50	M26	V103	E23
C42	B23	R51	N21	X23	C 2
C43	C22	R52	D10	X24	D 1
C44	E26	R54	B 6	X25	F 1
C45	F22	R60	B 9	X26	G 1
C46	H21	R61	G11	X27	L 1
C47	B21	R62	G11	X28	L 1
C48	N22	R63	G11	X29	J 1
C49	N21	R64	H 9		
C50	A 4	R65	G 9		
C51	E12	R66	G 9		
C52	C19	R67	G 8		
C53	C18	R68	E 7		
C54	E11	R69	G 7		
C55	B 6	R70	G 6		
C56	B 7	R71	F 6		
C57	E 9	R72	E 6		
C58	D10	R73	E15		
C59	C 6	R75	G20		
C60	C 7	R76	E 3		
C61	F12	R77	F 3		
C62	H11	R78	H 3		
C63	F12	R79	I 3		
C64	F10	R80	K 3		
C65	F 9	R81	L 3		
C66	F 9	R82	F 3		
C67	F10	R83	G 3		
C68	F 8	R84	I 3		
C69	F 8	R85	J 3		
C70	G 7	R86	L 3		
C71	E 6	R105	H26		
C72	F 6	R106	G24		
C73	G 5	R107	G23		
C74	H14	R108	D 3		
C75	E14	R116	K24		
C76	H13	R117	M29		
C77	F13	R118	I30		
C78	G20	R119	I32		
C79	G26	R120	M29		
C80	H24	R121	F21		
C81	G23	R122	E21		
C82	M29	R123	M20		
C83	M20	R125	D25		
C84	G25	R129	D21		
C85	E28	R140	H27		
C86	M27	R151	G21		
C87	H13	R154	D27		
C88	B 4	R155	G13		
C89	J14	R161	D27		
C90	G 9	R173	E23		
C91	B 3	R180	J14		
C92	C 4	S1	H 8		
C93	G20	S6	G33		
C94	C22	T1	L22		
C95	D11	T3	A 2		
C96	E15	T104	F12		
C97	G18	U1	B 7		
C98	D 2	U2	B23		
C99	F 2	U3	F21		
C100	G 2	U7	E13		
C101	I 2	U8	B18		
C102	J 2	U9	J 7		
C103	L 2	V1	N 6		
C104	B17	V2	L14		
C105	M19	V3	L18		
C106	E 8	V4	L13		
C107	G10	V5	K25		
C108	E11	V7	G30		
C109	A25	V8	K18		
C110	J10	V9	D22		
C111	J 9	V10	M22		
C112	M 6	V11	M26		
C113	J11	V12	M22		
C114	L 7	V13	A 5		
C115	N14	V17	A 5		

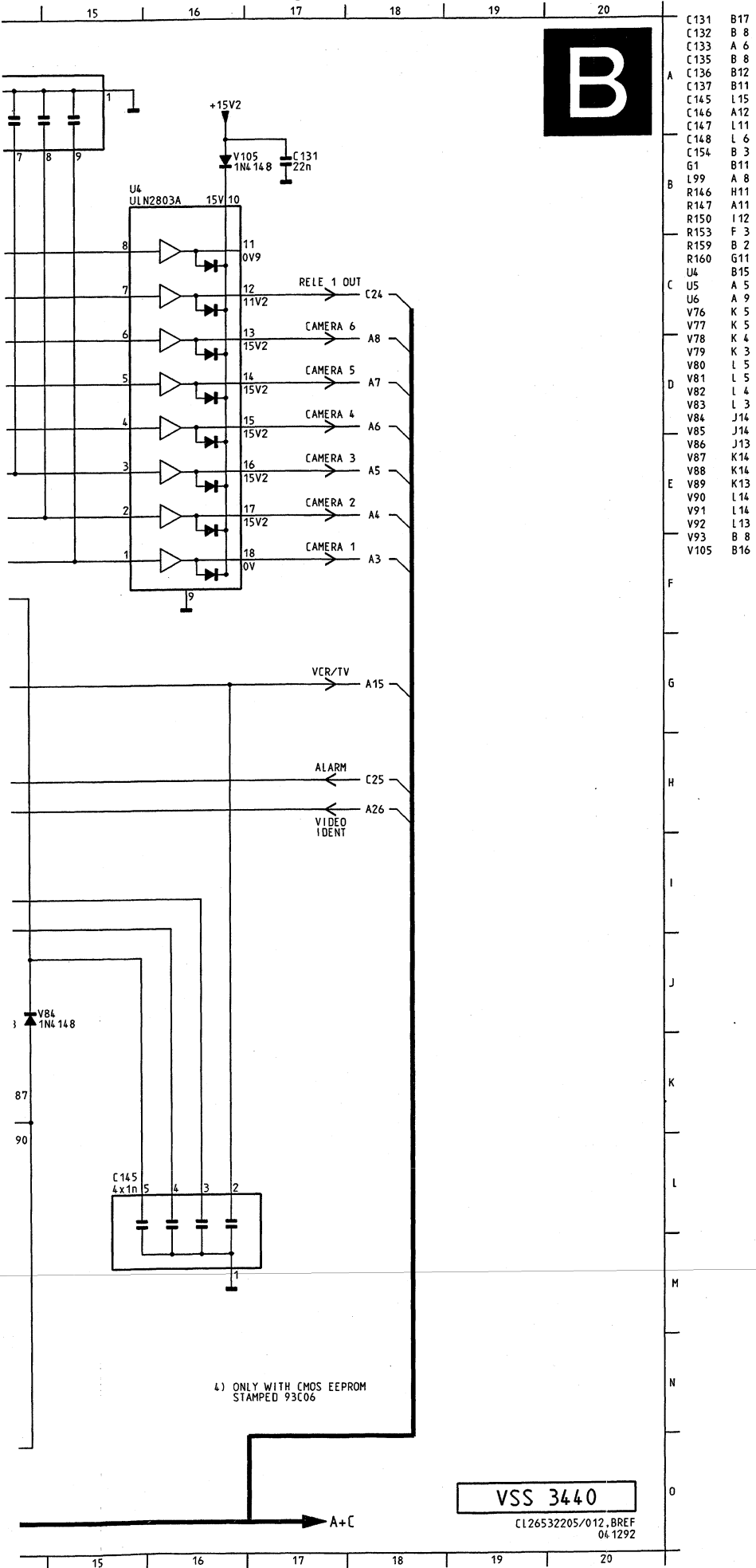
- 1) FOR VERSION VSS 3440SR ONLY
- 2) FOR VERSION VSS 3440/01T ONLY
- 3) FOR VERSION VSS 3440/00T (BASIC VERSION)
- 4) ITEMNRS ON SHORT CCT PCB ARE NOT IMPORTANT

VSS 3440
CL26532205/011,AREF
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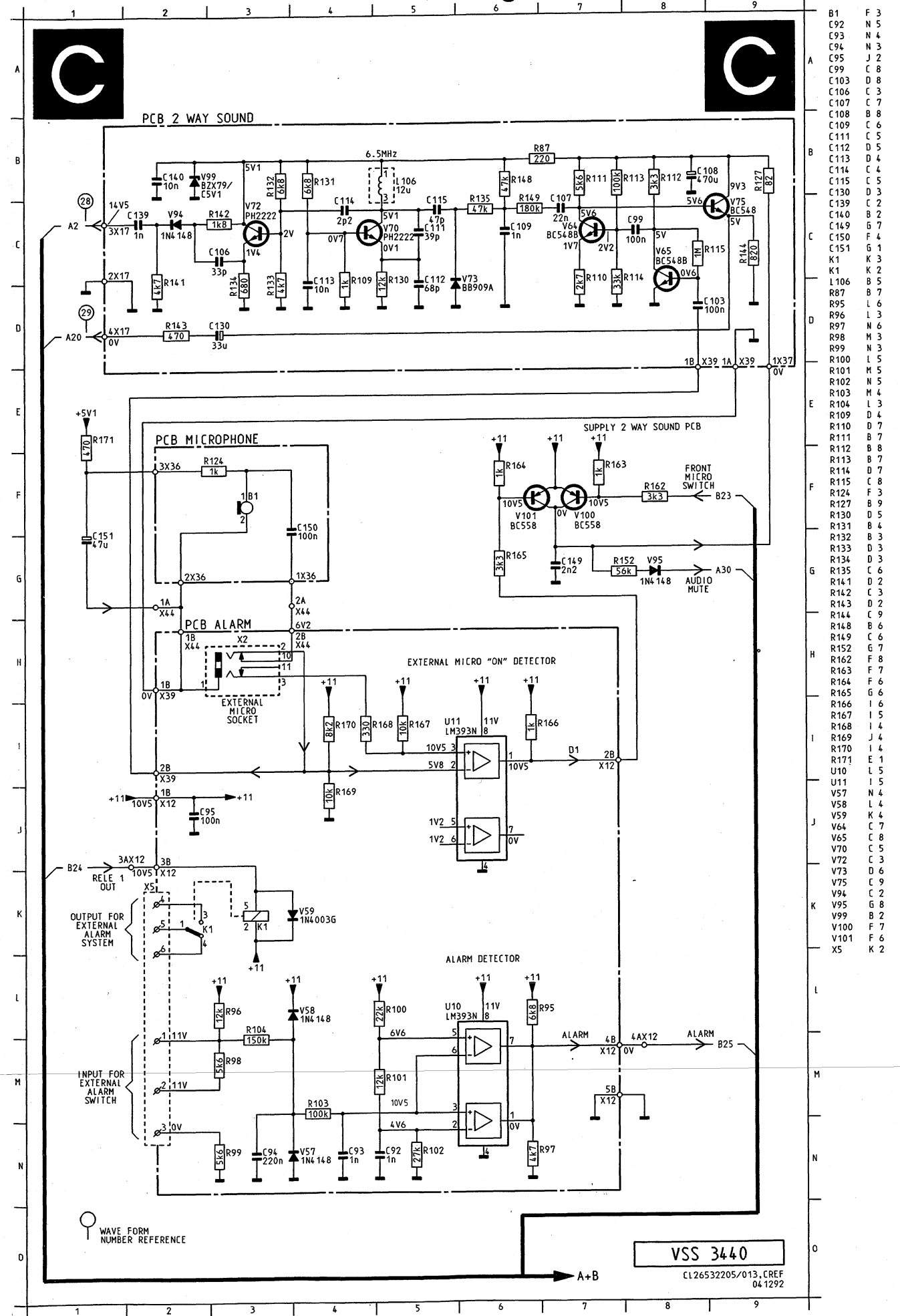
Circuit diagram



Circuit diagram



Circuit diagram



VSS3440

OP11

92.01

Service Information

This service information for VSS3440 Observation Monitors is based on :-

- 1) The modifications introduced during production.
- 2) Corrections in service manuals.

- 1) Modifications:
The modifications have been described here with the reference of the Factory Codes:-

Under Factory Code " OP00 " , the following modifications have been introduced:-

- 1.1 Switch CH3/CH4 mentioned as Item S1 in Mechanical spare parts list or S501 as mentioned in Miscellaneous (both represent same item) is changed from code 5322 277 21222 to 4822 276 13387.
- 1.2 In USA Version VS34405R, item R172 1M5, 4822 111 50603 is deleted.

Under Factory Code " OP01 " , the following modifications have been introduced:

- 1.3 Item C148 is changed from 8* 1nF (4822 122 90107) into 8* 100pF capacitance network (4822 122 90108)
- 1.4 Add a resistor R180, 68k Ω (4822 116 52297) between V67/V68 and earth. (ref. location J14 on circuit diagram A).
- 1.5 A capacitor C153, 470nF (4822 121 51252) is added between V67/V68 and earth, parallel to R180.
- 1.6 A capacitor C154, 33nF (5322 121 42489) is added between pins 1 and 5 of EEPROM IC, U5 (only if U5 is a C-MOS version, stamped as 93C06).
- 1.7 Delete connector X001 4822 265 30378. The connections are now directly soldered on PCB.
- 1.8 Item R118 is changed from 1k8 to 1k3 (4822 050 11302).
- 1.9 On the PCB the position of item numbers R121 and R122 are corrected after being interchanged.

- 1.10 Item R29 is changed from 220 Ω into 150 Ω (4822 116 52211)
- 1.11 Item R107 1k Ω (4822 050 11002) is changed into 820 Ω (4822 116 52231).
- 1.12 Refer Location of Adjusting Components in manual. Interchange R17 & R18 (only item numbers).

Under Factory Code " OP10 " , the following modifications have been introduced:

- 1.13 Fuse F201 is changed from T2A into T 3.5A (5322 253 30391).
- 1.14 A short circuit protection panel, service code: 212 30408 has been added. For mounting instructions, see E-MAIL SYMPTOM CURE ref. MON 92.31.
- 1.15 A diode V105 (4822 130 30621) is added between pin 10 of U4 (Cathode) and C131 (Anode).

Under Factory Code " OP11 " , the following modifications have been introduced:

- 1.16 Against PCB breakage during transport a protection has been provided by means of a plate and distance piece.
- 1.17 Item R51 is changed from 33 Ω to 47 Ω (4822 052 10479).

2) Corrections in service manual:-

- 2.1 In block diagram U3 is marked as TDA5858. Correct it as TDA5850.
- 2.2 Connect pin 10 of U9 to HOR+VERTICAL FLY BACK SUPP.
- 2.3 On circuit diagram A (Page 6.3) IC regulator for 5V1 should be corrected as U1.
- 2.4 On 2-way sound Circuit Diagram C the carrier is 6.5MHz in place of 6MHz. Also 11V at different nodes are corrected to 10V5.

- 2.5 On 2-way sound Circuit Diagram C, C108 is to be corrected from 470 μ F to 47 μ F.
- 2.6 In technical Data sound carrier for CH4 EIA is mentioned as 71.25 MHz. The correct figure is 71.75 MHz
- 2.7 In Alarm facility specification on Technical Data max. switching voltage should be corrected to 24V DC instead of 250V DC and max. switching current to 3A instead of 2A.

The following are the additions and modifications in the Spare Parts List.

ITEM	SERVICE CODE	DESCRIPTION
F001	4822 252 20007	THERMAL FUSE 125°C, 900mA ..00T/01T (to be added)
F001	4822 253 50143	FUSE T 500mA ..R (for USA already mentioned)
F201	5322 253 30391	FUSE T 3.5A
S501(S1)	4822 276 13387	SWITCH CH3/CH4
C148	4822 122 90108	NETWORK 8*100pF
C153	4822 121 51252	470nF 5% 63V
C154	5322 121 42489	33nF 5% 250V
R51	4822 052 10479	47 Ω 5% 0.33W
R29	4822 116 52211	150 Ω 5% 0.5W
R107	4822 116 52231	820 Ω 5% 0.5W
R118	4822 050 11302	1k3 1% 0.4W
R180	4822 116 52297	68k Ω 5% 0.5W
V105	4822 130 30621	1N4148